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ABSTRACT

The learning activities presented in this handbook illustrate educational opportunities related to participation in competitive activity as exemplified by the Olympic Games. Designed for use with students in grades seven through nine, these learning units may be integrated with the existing curriculum for the class. Subjects offered include mathematics and the metric system, art, music, geography, history, nutrition, drug abuse, physical fitness, and writing and oral skills. For each unit, grade levels and learning objectives are given. Articles on Olympic concepts and history, an Olympic spelling list, information on Olympic committees, and a bibliography are appended. (JD)

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ED211452

THE OLYMPICS:

AN EDUCATIONAL OPPORTUNITY

ENRICHMENT UNITS, 7-9

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SP 018762

PREFACE

The United States Olympic Committee attaches great significance to the infusion program built around the theme "Olympism." We recognize the great demands on your time, but we also feel that this program has much merit in preparing the youth of our country to be better acquainted with the nations and people around us.

The Olympic Games were once called by the late Avery Brundage, long-time president of the world-wide movement, "the strongest moral force in today's society." There is more to the Olympic Games than good sportsmanship and fair play. The Olympic Games best illustrate the interaction between the peoples of the world without regard to sex, race, color, or religious beliefs.

The Curriculum Planning Committee and curriculum writers, I feel, have skillfully woven together a program which is ideally suited to be "infused" into existing curricula content. The units are flexible and they can be used in part or as a whole.

The program has been designed to assist the teacher who has limited time for research on Olympic matters. I feel that the interest stimulated by the Olympic Games is an important educational asset. Today, there is, in our country, general agreement that the Olympic Games are good for the development of youth, and we hope that these materials will contribute further to their development.

The United States Olympic Committee appreciates the wonderful cooperation from the school community. Without your support we would not have been able to undertake such an ambitious program. You have our best wishes for success in your efforts to educate our youth in and through Olympism.

F. DON MILLER
Executive Director,
United States Olympic Committee

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FOREWORD

In Greece during the period of classical antiquity, the people held a belief in the nobility of mankind that has lasted through the ages. The ancient Greeks idealized human form and grace and beauty. They sought the harmonious development of man in all of his aspects and capacities.

This concept of man's noble destiny saw its fullest expression in the ancient Greek Games, of which the most historically notable were those that took place in Olympia on the plains beneath Cronion Hill. There the great god Zeus looked down on the athletic, cultural spectacle with approval. The Games celebrated not only excellence in athletic performance; they also manifested the highest levels of sportsmanship and ethical conduct. At their zenith, the Games provided a showcase for poets, orators, musicians, philosophers, and statesmen, as well as renowned athletes.

While the ideals of the Olympic Games were kept alive by thoughtful, sensitive men and women for over a thousand years, their form and substance were lost to the world until late in the 19th Century when Baron Pierre de Coubertin rekindled the Olympic Flame. Coubertin envisioned the Modern Games as being both the outcome of, and a stimulus to, mass participation in sport and physical education by men and women, young and old, throughout the world. The Games would provide the stage for competition among the finest athletes, and an exemplification of the highest levels of sportsmanship and international brotherhood. The Games would also motivate people to enjoy lifelong participation in physical activities and to live in harmony within themselves and with each other. From such mass participation, the best of the performers would emerge and, thus, the cycle would continue. This de Coubertin called the Olympic Movement.

The ideals of the Olympic Games are consonant with the best thought in American education. Have we not, for many years, spoken of "education of the whole child" and "the quest for excellence?" It is this relationship between Olympic ideals, the essential truths of competition, and some of our goals for society through education which we propose to emphasize under the concept of Olympism. This publication offers a practical application of Olympism as an educational program designed to capture the values inherent in competitive activity while enhancing the regular instructional objectives of the classroom.

The units and activities developed for this book may be used to lend an additional dimension to your teaching both between and during the quadrennial Olympic Games. The ideas and strategies they incorporate are but a beginning. The creative teacher will find them a stimulus for many more, perhaps even more effective, activities. We urge you, the administrator, teacher, and interested parent, to use them purposefully.

Simon A. McNeely
U.S. Department of Education

ACKNOWLEDGEMENTS

At the request of the United States Olympic Committee Education Council, these instructional materials were developed, fieldtested, revised, and distributed in the state of Georgia during the past two years. These curriculum activities were conducted by the Department of Health, Physical Education, Recreation and Safety at Georgia State University, Atlanta, Georgia with the aid of successive grants from the United States Department of Education's Bureau of Elementary and Secondary Education, State and Local Educational Programs.

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Special thanks go to the many local elementary and middle schools in Georgia for their participation in the project's pilot study.

Subsequent to project activity in Georgia, these curriculum materials and a companion publication, The Olympics: An Educational Opportunity, Enrichment Units, K-6, were revised and drafted in a new format. In addition, new unit materials were included. The following individuals are acknowledged for these contributions:

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INTRODUCTION

In a sense, Baron Pierre de Coubertin's view of what the Olympics truly represents was the cornerstone of this curriculum project. As you become involved in using these materials, the Olympics and the references cited, you will recognize that this French nobleman had a vision in the late 1800's that he managed, by dint of sheer stubbornness and commitment, to bring into being. Baron de Coubertin single-handedly conceived the modern Olympics and has thereby created a worldwide movement that has become a groundswell throughout the world; a groundswell that we are asking you to help us accelerate and amplify. Pierre de Coubertin once said, "The important thing in the Olympic Games is not to win but to take part; the important thing in life is not the triumph but the struggle. The essential thing is not to have conquered but to have fought well. To spread these precepts is to build up a stronger and more valiant and, above all, more scrupulous and more generous humanity."

There are many people in this world who believe, like de Coubertin, that sport, competition, and participation in friendly strife have deep educational values that should be available to every individual. They believe that such opportunity for participation should be organized in ways that will make it easy for the citizens of the world to participate and to carry away the lessons of such participation. A broad view of what the Olympics can mean to us places more emphasis on the essence of participation and competition, rather than merely gauging athletic prowess, for the Olympic Games were comprised of more than just athletic events.

Walter Umminger, in his book, Supermen, Heroes, and Gods, writes:

> *"The Greeks do not appear to have been interested in measuring and recording individual feats – in 'records,' in other words. We have already seen how even Bybon's stone fails to mention the crucial point for establishing a record – the distance a weight was thrown. Competing, that was what counted, and if possible putting up a better performance than the other competitors. There were, as time went on, so many classes to compete in. If you were not going to measure yourself against the sprinters or the boxers, you could try improvising poetry, or dancing, or speech making, or playing music – there was even an Olympic prize for trumpet sounding. The trumpeters might be challenged for the same prize by heralds, who would compete against them in the Echo Porch, a long arcade facing west across the center of the Altis. The strength and clarity with which messages could be sent, whether by bugle or by town crier, were essential for public communication, so the contest of both for the same prize was quite appropriate. We are so used to "athletics" meaning only physical exercises and sports that we have to remind ourselves of what the word meant to the ancient Greeks. An "athlete" was quite simply a "competitor" – from the word for prize:* athlon. *To them, an athlete was someone who entered for any sort of prize: They did not*

separate physical competitions in their minds from competitions in other forms of skill, any more than they separated gymnastics from the mental and physical activities of a man as a whole. Olympia, in Greek eyes, was not merely the mecca of athletics but more than that: it was the human proving ground for the Greek ideal of strong, able, beauty-loving, and wise citizens."

It is from this perspective that we view the purposes of this publication: an organized program to expose students to the values inherent in participation in a competitive activity. Implicit in this is the belief that a study of the Olympic Games is valuable but not necessarily essential to a grasp of the seminal truth to be found in competition. In support of this contention, the learning activities herein dramatize and illustrate the educational opportunities related to participation in competitive activity as exemplified by the Olympic Games. Rather than "take time out" from the everyday instructional program to deal with the Olympics, objectives and activities pertaining to the Games are built into the normal subject areas and skills preoccupation of the classroom routine. Thus, each unit serves the purposes and objectives of the subject area identified at the outset in terms of cognitive and attitudinal outcomes and skills development while incorporating understandings and activities which deal with the Olympics.

The units have been variously labeled as applicable for grades 7-8, 7-9, and 8-9. Obviously, a measure of creative adaptation in their use will widen the grade level applicability of most units. Some presumptions about skills, which may not match the particular abilities of your class, have been made. Again, adaptation and accommodation are encouraged.

Each unit begins with objectives which are followed by a series of related activities. The activities, loosely-articulated to permit either random selection or sequential use, consist of procedures for the teacher and directions and questions for the students *(in italics)*. The first page of each unit is illustrated with a logo or logos characterizing its content emphasis, as indicated in the Contents on page *vi*. In addition to the references found at the end of most units, a comprehensive, general bibliography is provided, beginning on page 133. The Appendix contains numerous examples of useful reference material, either for general use, or keyed to specific units. You may wish to fashion some of these items into simple pre- and posttests for evaluating student awareness and understandings.

In conclusion, it should be pointed out that the principle of infusion, that is, the use of the subject area cognitive and affective base, salted with ideas and understandings about the Olympics, precludes the necessity of a major effort to become familiar with a new content area. A familiarity with some general information and understandings about the Olympics (including that provided in the publication as well as information readily available from some of the more common references cited) will sufficiently enhance your own proven teaching ability and the topics you teach. As a result, the use of these units should be an enlightening and interesting experience for your and your students.

THE OLYMPICS AND STANDARDIZATION

7-8

OBJECTIVES...to learn the concepts of standards and standardization...to investigate the history of weights and measures...to discover the origins of the metric system...to discuss the present role of metrics in the world and in the United States...

BACKGROUND...Through history it has been possible to observe that innumerable types of standards have been established and adopted by the world's peoples as attempts to impart order to the chaos of an increasingly populous and complex human society. Standards have been established to measure and compare human growth, production, commerce, and individual and collective achievement in all aspects of life. A prime example of standardization is the emergence of a (nearly) uniform system of weights and measures.

Using these activities with the students should also contribute to the development of the following attitudes:

- Recognition of the value and the relationship of history to present-day life
- An interest in learning the origins of measuring systems and terms, people, and events as they relate to mathematics and the Olympics

ACTIVITY...*1*...Consider with the class the following definitions:

> standard, *n:* something established by authority, custom, or general consent as a model or example... or, as a rule for the measure of quantity, weight, extent, value, or quality; a means of determining what a thing should be (synonyms: CRITERION, GAUGE, YARDSTICK, TOUCHSTONE, BENCHMARK)
>
> _____, *adj:* constituting or conforming to a standard, especially as established by law or custom
>
> standardize, *vt:* to compare with a standard
>
> standardization, *n:* the condition in which a standard has been achieved or effectively applied

- *Name some common standards.* (standard time, standard gauge, standard score, standard of living, standard operating procedure)
- *What is the performance standard used in this classroom and the others in this school?* (A = 90^{+} = EXCELLENT; F = 64 = FAILING, etc.)

ACTIVITY...2...As the definitions on the previous page suggest, weights and measures are standards and they have tremendous significance in our lives.

Try to envision a world, or a society (town, country), without standard weights and measures. Discuss.

It might be entertaining and enlightening to role play a simple act of commerce or progress of a sports competition in which there are no standards.

- *Cite some examples of problems caused today in instances in which standards are at variance.* (auto parts and tools; appliances and voltages, etc.)

Using some of the references cited in the BIBLIOGRAPHY, review with the class the events of the ancient Olympic games.

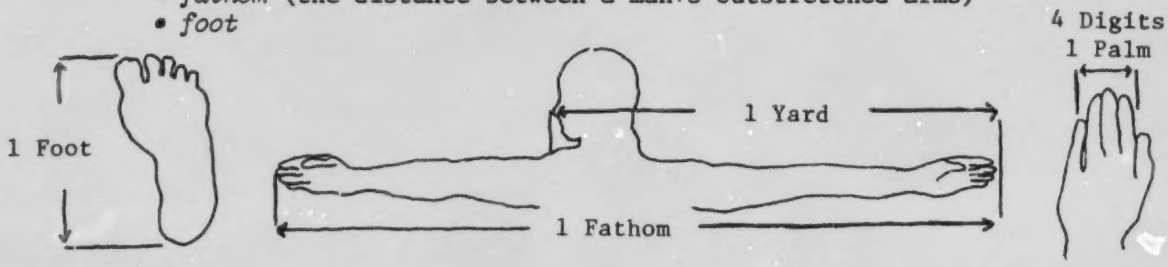
Measurement was not considered important during the ancient Olympic games... winning was the thing. For example, there were no weight classifications in boxing, and a man of any weight might enter. Foot races were conducted over distances reckoned by stadium lengths (stade race: 1 length, approximately 200 yards; diaulos: twice the distance of the stade race) and among participants wearing armor. Records were not kept and would have had little meaning even if they had been since stadiums in different cities were of different lengths, and because the Greeks had no instruments for measuring brief intervals of time.

- *How important were weights and measures in these games? Explain.*
- *Discuss some of the shortcomings of this approach to athletic competition.*
- *Were weights and measures used in everyday life in ancient Greece? What were they?*

ACTIVITY...3...Using the encyclopedia and other references, develop an outline of the history of measurement.

In earlier times, linear measurements were based upon parts and proportions of the human body.

- *Define the following terms relating to measurement:*
  - *cubit* (the length of the forearm, or 6 palms)
  - *digit* (width of one finger [4 digits = 1 palm])
  - *hand; palm* (about 4 inches or digits) - still used to measure horses
  - *fathom* (the distance between a man's outstretched arms)
  - *foot*



- *Why do you think that these measurements fell short of being "proper*

standards" such as the kind society requires today? (HINT: Kareem Abdul Jabbar and Calvin Murphy)

- *Apart from the answer hinted at above, what else do we know about the evolution of the human race through the ages that would make such standards inadequate?* (Human proportions have increased in size through the centuries.)

Read or discuss the paragraph below with the class.

* "Civilization forced man to communicate and to trade in such a way that misunderstandings would be minimal. Ambiguities in measurements of length, area, and volume had to be resolved. There was a need on the part of the government to set a standard for these measures. Just as three meant three, no more, no less when one counted, so too an arm's length of cloth had to mean one thing, no more, no less, no matter who the buyer or seller were. The old units were kept, but their meanings were now "codified" or "standardized" so as to maintain good order and ethical trade. The ruler set the standard: the foot was the ruler's foot; the inch, or *uncia*, the ruler's inch."

- *What do we call the system of measurement which is described in the last sentence of the paragraph?* (English system)

- *Do the English use this system?* (not any longer)

- *Who uses this system of measurement?* (the United States)

- *What system of measurement is used by almost everyone in the world?* (metric system)

ACTIVITY...4...OPTIONAL: Discuss with the class the origin of the metric system.

The Romans defined the mile as 1000 paces. The word mile is derived from the Latin word "milli" meaning 1000. The Roman pace was two steps and was equal to five Roman feet. This was an approach to a decimal system of measurement of length, but the system did not last. The British, for example, defined the mile as 5,280 feet or eight furlongs; certainly not a decimal system.

Since 10 is the base of our number system, the value of a measuring system also based on 10 is obvious. Calculating with such measurements is much simpler than calculating with measurement not based on 10; for example, inches, feet, and yards.

The metric system was born as one of the many efforts at reform in France during the revolutionary era of the late eighteenth century. Reports to the Academy of Science of Paris by committees established to reform the system

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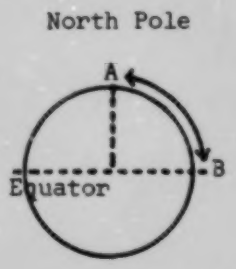
*Excerpted from Monograph on Metric Education for High School Teachers by Normand H. Cote, an unpublished document prepared for the Northeastern States Metric Education Consortium under a grant from the United States Office of Education.

of weights and measures contained proposals which included the adoption of a decimal base for the new system. In 1791, the Academy proposed the name "meter" (from the Greek "metron" meaning measure) for a unit of length equal to one ten-millionth of the length of a quadrant of the earth's meridian.

1 meter = one ten-millionth ($\frac{1}{10,000,000}$) of arc AB



- *Why did the British, though invited, not immediately participate in the new system, thus preventing early worldwide use of metrics?* (political reasons)
- *When did England adopt the metric system?*
- *Why has the United States not yet converted to the metric system?*
- *What are the advantages of having a single system of weights and measures for the entire world?*

Relate this discussion to the students' math work with the metric system.

The prevailing opinion among educators is that conversions from the metric system to the English measurement system and from the English to the metric should be a very small part of metric instruction. Many educators feel that conversion between the two systems should not be included at all. They feel that it is much better for the student to do his measurement thinking within one system. There is really little necessity for conversion between the systems.

If some conversion is desired, either to show relationships between units or for practice with multiplication and division, then conversion factors should be given to the pupils. They *should not* be required to memorize conversion factors. Estimates should be encouraged before computations.

The following relationships may be used:

1 cm = .39 in. (approx.)	1 in. = 25.4 mm
1 m = 3.28 ft. (approx.)	1 in. = 2.54 cm
1 m = 1.09 yd. (approx.)	1 ft. = 0.30 m (approx.)
1 km = 0.62 mi. (approx.)	1 yd. = 0.91 m (approx.)
1 kg = 2.2 lbs. (approx.)	1 mi. = 1.6 km (approx.)
1 l = 1.06 qt. (approx.)	1 lb. = 0.45 kg (approx.)

ACTIVITY...5...Provide the students with the activities sheet which follows.

KILO-
1000.
hecto-
100.
deka-
10.
BASIC UNIT
1.
METER
LITER
GRAM
deci-
.1 = 1/10
CENTI-
.01 = 1/100
MILLI-
.001 = 1/1000

Do you find anything strange or difficult about our money system? (Other than you do not seem to have enough!!) For instance, the base unit is one dollar, written $1.00. One tenth of a dollar is written _____? One one-hundredth of a dollar is written _____? The common term for 1¢ is cent; for 10¢ is dime; and for 100¢ or 10 dimes is one dollar. We find our money system easy because it is based on the number 10, and we experience it every day.

The metric system is just as easy, for it also is based on the number 10. Ten of this makes one of that. This relation is used constantly and consistently in the metric system. The illustrations on this page, relate our money system to our number system to the metric system--10 millimeters = 1 centimeter; 10 centimeters = 1 decimeter; 10 decimeters = 1 meter; etc.

Do the following activities.

1. *Select some metric exercises from your textbook to become familiar with the system's use in mathematical operations.*
2. *Measure distances throughout the building in meters and make signs to place in the halls.*
3. *At the grocery store, make a list of five items that have both metric and customary weights or volumes, showing both measurements.*
4. *Give a school weather report and forecast using the metric values.*
5. *Find signs and posters outside school that will have to be changed when we go metric. Design the new signs and posters.*
6. *Go through magazines and newspapers. Find articles and ads in which the metric system is used.*
7. *Using a state road map, make a table showing the metric distances from the school to cities around the state.*

7-8 METRIC MEASUREMENT

OBJECTIVES...to identify terms used in linear metric measurement... to learn to estimate, with reasonable accuracy, various distances in different units...to draw and measure line segments using a metric ruler...to construct and use an astrolabe for measuring vertical angles and distances...

BACKGROUND...In addition to the emphasis on participation, competition and achievement are important elements of the Olympic Games. The competitive aspect of events requires that measurement be accurate, efficient, and consistent. The metric system meets these requirements.

Using these activities with the students should also contribute to the development of the following attitudes:

- Recognition of the role of mathematics in society; i.e., understanding that trade, industry, sports, etc., rely on an accurate system of measurement
- Becoming self-reliant by having confidence in measuring instruments and their applications to the performances of oneself and one's fellow students

ACTIVITY...*1*...Using the information on the METRIC ACTIVITIES SHEET, page 7, complete the chart below.

UNIT	SYMBOL	EQUIVALENT IN METERS
1. kilometer	km	1000 meters
2. hectometer		
3. dekameter		
4. meter		
5. decimeter		
6. centimeter		
7. millimeter	mm	0.001 meter

Changing from one metric value to another can be accomplished easily since the metric system is a decimal system with all multiples and submultiples based on factors of 10. To change a metric value to a higher denomination, divide the number in the unit by 10 as many times as necessary to reach the desired higher denomination. The simplest method to use when dividing by a power of 10 is to move the decimal point to the left one place for each higher unit.

km	hm	dam	m	dm	cm	mm
1000	100	10	1	0.1	0.01	0.001

Change: 70 meters (m) to dekameters (dam)
To move to one higher unit, divide by 10; $70 \div 10 = 7$
or, move decimal one place. $7.0.$

Change: 400 centimeters (cm) to meters (m)
To move to two higher units, divide by 100; $400 \div 100 = 4$
or, move decimal two places. $4.00.$

Change: 200 decimeters (dm) to hectometers (hm)
To move to three higher units, divide by 1000; $200 \div 1000 = 0.2$
or, move decimal three places. $0.200.$

Using a meter stick, identify the decimeter, centimeter, and millimeter markings.

To change a metric value to a lower denomination, multiply by 10 as often as necessary to reach the desired lower denomination. Move the decimal point one place to the right for each lower unit.

Change: 5 kilometers (dm) to meters (m)
To move to three lower units, multiply by 1000; $5 \times 1000 = 5000$
or, move decimal three places $5.000.$

Change: 8 meters (m) to centimeters (cm)
To move to two lower units, multiply by 100; $8 \times 100 = 800$
or, move decimal two places. $8.00.$

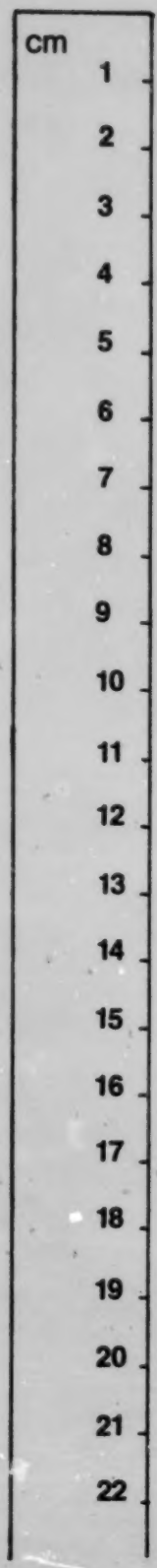
Change: 6 meters (m) to decimeters (dm)
To move to one lower unit, multiply by 10; $6 \times 10 = 60$
or, move decimal one place. $6.0.$

Use the dm to mm scale and the instructions above to help you determine the missing numbers below:

(1) 5 m = _____ cm
(2) 7 dam = _____ m
(3) 13 cm = _____ mm
(4) 1 km = _____ m
(5) 50 hm = _____ m
(6) 2 dm = _____ cm
(7) 1000 m = _____ km
(8) 2 m = _____ mm
(9) 3000 mm = _____ m
(10) 20 m = _____ hm
(11) 80 m = _____ dam
(12) 2000 mm = _____ dm
(13) 200 mm = _____ cm
(14) 600 cm = _____ m
(15) 50 mm = _____ cm
(16) 10 dam = _____ m
(17) 10 dm = _____ mm
(18) 13 km = _____ dam
(19) 2 m + 7 cm = _____ cm
(20) 2 m + 7 cm = _____ m
(21) 4 cm + 9 mm = _____ mm
(22) 4 cm + 9 mm = _____ cm

Measure these line segments:

(23) ._____. = _____ dm
(24) ._____. = _____ cm
(25) ._____. = _____ mm
(26) ._____. = _____ cm
(27) ._____. = _____ mm



(28) . _____ . = _____ cm
(29) . _____ . = _____ mm
(30) . _____ = _____ cm
(31) . _____ . = _____ mm

Draw a line segment for each of the given lengths:

(32) *2 decimeters*
(33) *10 centimeters*
(34) *12 millimeters*
(35) *2 centimeters*
(36) *17 centimeters*
(37) *22 millimeters*
(38) *1 decimeter*
(39) *5 centimeters*
(40) *14 millimeters*

ACTIVITY...2...Discuss the following applications of metric units for everyday use:

The meter replaces the customary foot and yard. It is usually used for expressing dimensions of larger objects and short distances.

The kilometer replaces the mile and is used for measuring long distances.

The centimeter often replaces the foot and inch when used for measuring such items as body dimensions, cloth products such as towels and sheets, and many other common household articles.

The millimeter replaces the inch and is used when measuring small dimensions or very short lengths. It is used instead of the centimeter for precision measurements.

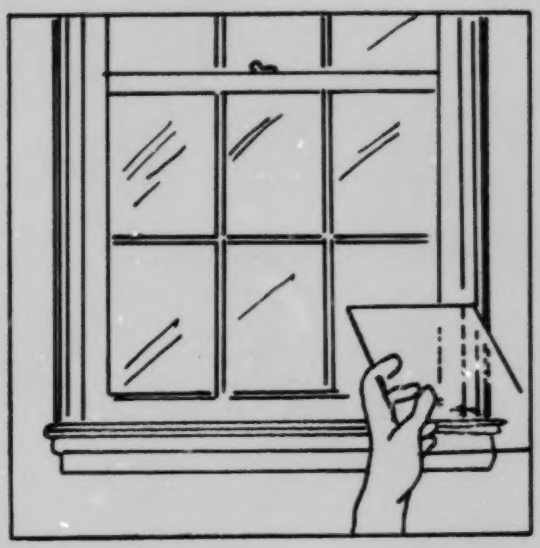
Identify the metric unit of length you would probably use when measuring the following:

- *Length of a swimming pool:* _____
- *Length of a pencil:* _____
- *Distance between cities:* _____
- *Thickness of a piece of plate glass:* _____
- *Width of a classroom:* _____
- *Height of a building:* _____
- *Waist of a person:* _____
- *Width of a pole vault chute (running strip):* _____
- *Length of a javelin:* _____
- *Diameter of a nickel:* _____

Estimate the following:

- *Height of the door in meters:* _____
- *Width of this paper in centimeters:* _____

- *Height of your desk table in any metric unit:* _____
- *Length of your index finger in millimeters:* _____
- *Width of a window pane in decimeters:* _____



Complete the sentences about the heights of objects in meters.

- *1 meter is taller than a* _____ *(object)*.
- *1 meter is shorter than a* _____.
- *My desk is shorter than* _____ *meters.*
- *My desk is taller than* _____ *meters.*
- *I am taller than* _____ *meters.*
- *I am shorter than* _____ *meters.*

Estimate the following items in centimeters.

- *Stick of bubble gum:* _____
- *Key:* _____
- *Quarter:* _____
- *Piece of candy:* _____
- *Watchband:* _____
- *Eraser:* _____

Make and record an estimate of the distances asked for below; then measure the actual length.

Object	*Estimated*	*Measured*	*Error in estimate*	*Most convenient unit to use*
Desk height	_____ *cm* _____ *mm*	_____ *cm* _____ *mm*	_____ *cm* _____ *mm*	
My height				
Chalktray to floor				
Length of textbook page				
Thickness of pencil				
Length of classroom				

Prepare a place on the school grounds where students can participate in the broad jump (long jump). Each student should estimate his/her jumping distance first; jump three times (average the three jumps for the single jump distance); and record the data as in the chart below.

Name	Predicted Distance	Actual Distance	Difference
Anita	2.75 m	2.97 m	+ 0.22 m
Ralph	3.50 m	3.40 m	- 0.10 m
Wayne	4.00 m	3.72 m	- 0.28 m

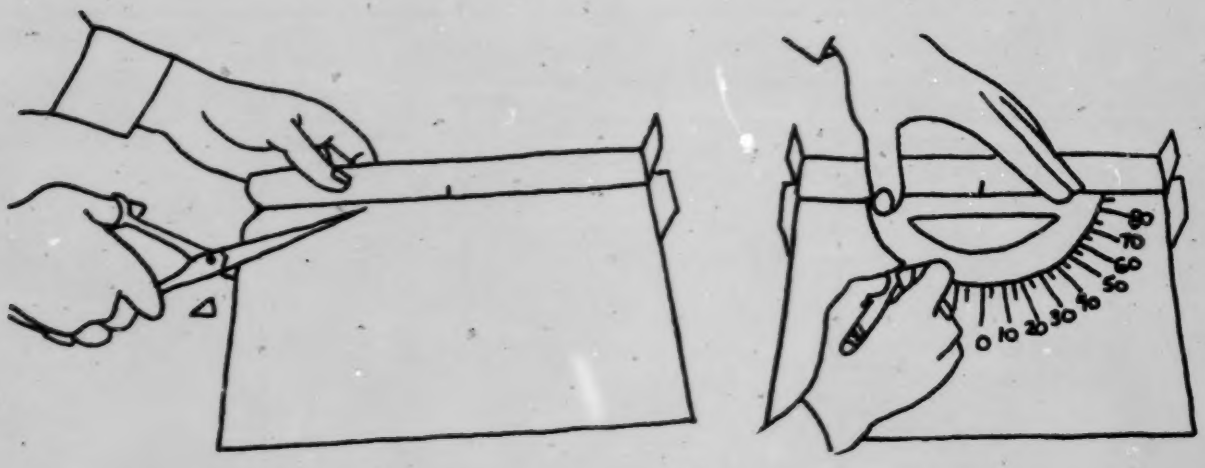
ACTIVITY...3...One of the oldest of scientific instruments, the astrolabe, was invented by the Greeks sometime during the second and third centuries B.C. It served as a navigational tool for early sea travelers and was used to measure vertical angles and heights. In the 1700's, the astrolabe was replaced by the more accurate sextant.

Assist the class in the construction of an astrolabe.

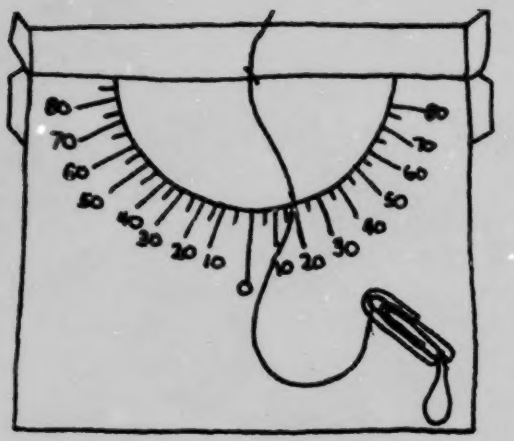
Cut a piece of cardboard or other stiff materials to 20 cm by 30 cm. Using a straight-edge ruler, draw a line across the cardboard. Make an index mark with a pencil at the middle of this line.

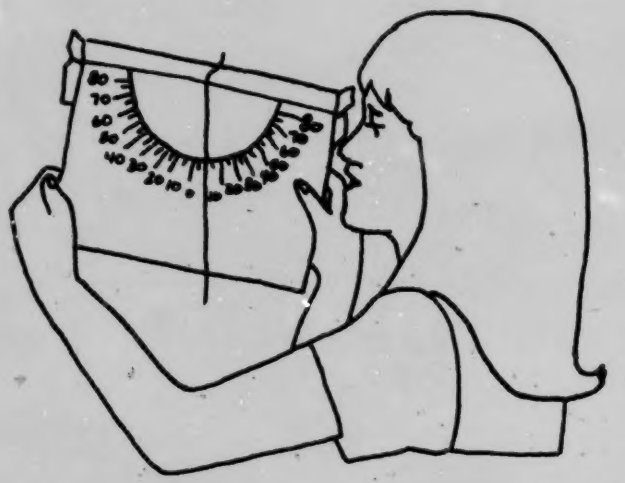
Cut a triangular notch at each end of the line, about 1 cm deep from the edge. At approximately 10 cm from each of the upper corners, make a cut 2 cm deep from the edge and cut away to the bottom of the cardboard. Fold as shown.

Place a protractor on the cardboard with the center point of linear scale on the index of line previously drawn on the cardboard and mark off degrees on your cardboard as shown.



Use a piece of string 20 cm long and tie a clip to one end and tape the other end over the index mark on your cardboard as shown. (See next page.)

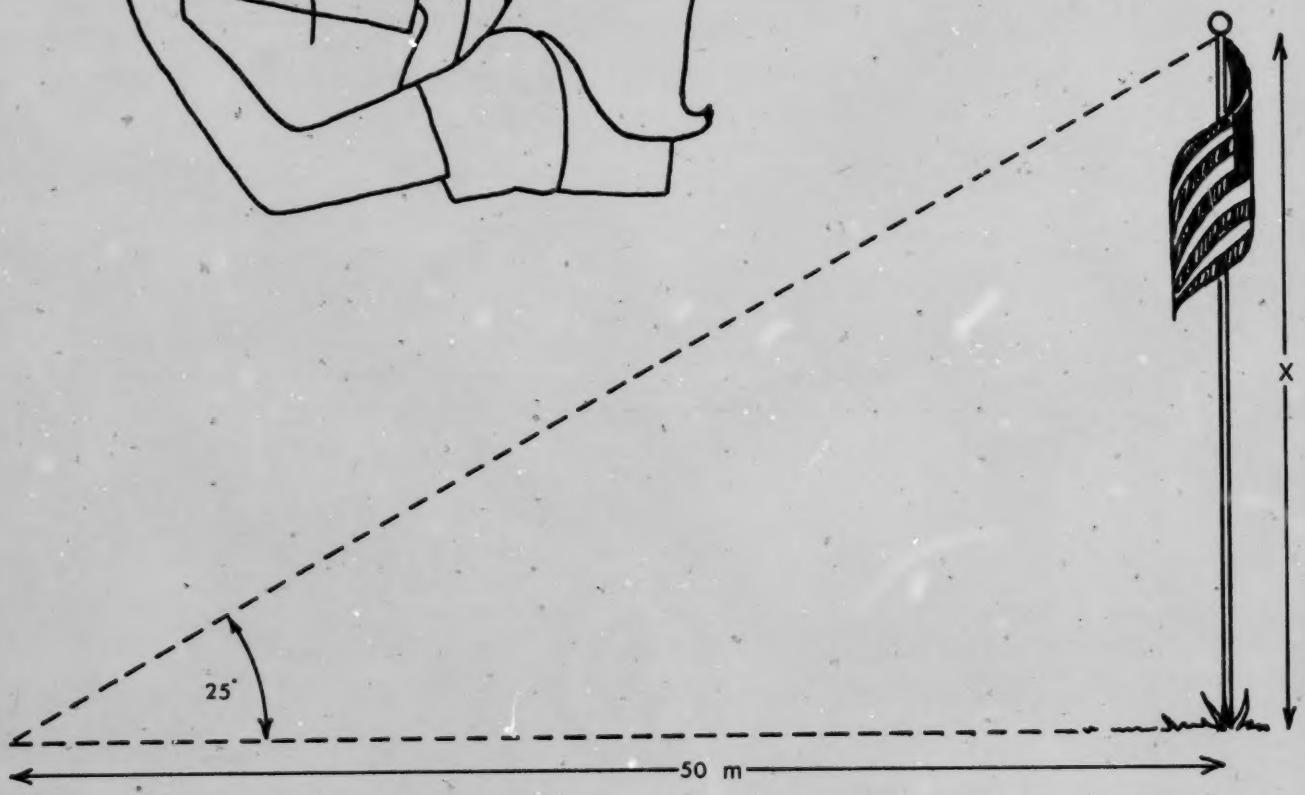




Provide students with a table of trigonometric functions for tangents. They should measure altitude or vertical distance (angle up from the horizon) of any object, by holding the astrolabe as illustrated.

Face the object and raise the end of the astrolabe until you sight the topmost point of the object, through the notches. The weighted string must hang freely. When you have sighted the object, have a classmate read the angle at which the string crosses the scale.

The angle is the altitude of the object. The tangent of the angle times the horizontal distance of the observer from the object equals the height of the object. For example:



The astrolabe reading is 25° from ground level to the top of the flag pole. The distance from the point of observation to the base of the flag pole is 50 meters.

Solution: $\frac{x \text{ (height of pole)}}{50 \text{ m}} = \text{Tan of } 25°$

$x = (\text{Tan of } 25°)\ (50 \text{ m})$

$x = (0.4663)\ (50 \text{ m})$

$x = 23.3$ meters

Working in pairs, use the astrolabe to determine the heights of a variety of objects on the school grounds which can be verified by other means.

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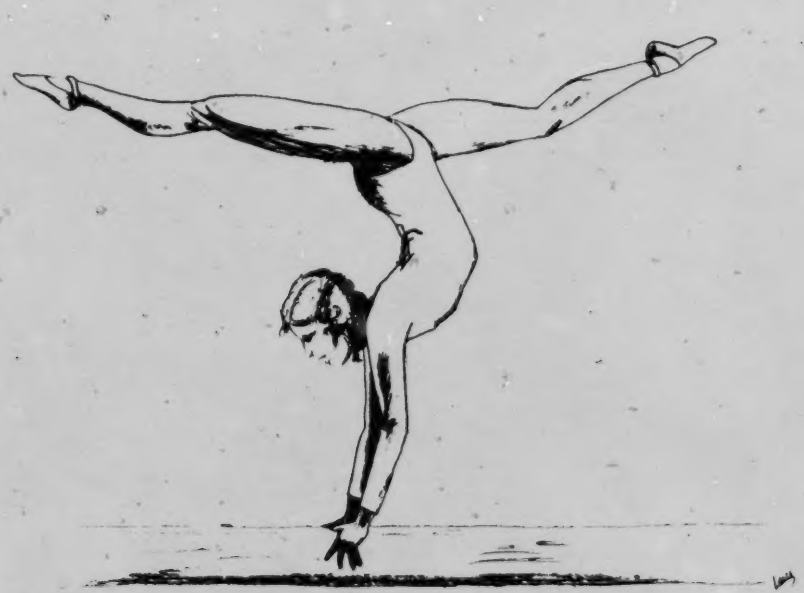


METRICS & THE OLYMPICS

7-8

OBJECTIVES...to have students become familiar with two basic metric measurements: length and weight...to reinforce the metric skills of the students by demonstrating how the metric system is used in the Olympics...

BACKGROUND...Due to improved television and press coverage of the Olympic Games, children are becoming increasingly familiar with the more common Olympic events. Since Olympic events use metric measurement, the Olympics may be used to stimulate interest in the metric system, especially since students think the metric system is quite foreign to them.

ACTIVITY...1...Introduce the metric concepts of length and weight which are very important concepts in the Olympic Games.

Length: The metric standard for length is the meter (m).

- 1 meter = 100 centimeters (cm) = 1000 millimeters (mm)
- 1 kilometer (km) = 1000 m
- 1 meter = 39.37 inches = 1.09 yards
- 1 kilometer = 0.62 miles

One common Olympic race for both men and women is the 100-m dash.

Calculate the number of yards in the 100-meter dash. (109 yards)

The men's world record for the 100-yard dash is 9.0 seconds.

Would the Olympic and world record for the 100-meter dash be higher or lower than 9.0 seconds? Why? (Higher. The Olympic and world record for the 100-meter dash was set by Jim Hines [USA] at Mexico City in 1968 with a time of 9.95 seconds.)

The "metric mile" race of the Olympics is the 1500-meter run.

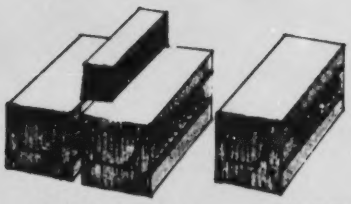
Calculate the number of yards run in this race. (1635 yards)

Is this race longer or shorter than a mile? (Shorter, by 125 yards)

What is the Olympic record for this race? (The Olympic record for the men's 1500-meter run is held by Kip Keino of Kenya set in Mexico City in 1968 with a time of 3 minutes and 34.9 seconds.)

Weight: The metric standard for weight is the kilogram.

- 1 kilogram = 1000 grams (g)
- 1 kilogram = 2.2 pounds
- 1 pound = 0.454 kilograms



An Olympic weightlifting event is the combined weight of two different lifts for a superheavyweight man (weighing more than 110 kg/242 pounds). The Olympic record is 1411 pounds lifted by Alexeyev of Russia in Munich in 1972.

Convert this weight into kilograms. (641 kg)

In 1980 in the Moscow Olympics, the Russian superheavyweight Rakhmanov lifted a total of 970 pounds.

Calculate Rakhmanov's weight lift in kilograms. (441 kg)

ACTIVITY...2...Since their origin in 1896, the modern Olympic Games have used only the metric system. The only exception is the marathon which is measured as 26 miles and 285 yards.

Find out why the length of the marathon is so unusual.

Why has the metric system been the only form of Olympic measurement?

The Olympic and world record for the men's long jump was set by America's Bob Beamon in 1968 with a jump of 8.90 m which is equal to 29 feet 2½ inches.

Discuss why the metric figure is easier to use and understand than its English equivalent.

If you were brought up in a metric system country, would the knowledge that the Olympic record for the women's discus throw of 69.96 m set in Moscow in 1980 be more meaningful to you than if you were brought up in an English system country knowing that this discus throw was 229 feet 6¼ inches? Discuss.

ACTIVITY...3...Have the students construct either a bar graph or a line graph for several Olympic events.

Construct a graph of the winning times for the men's 1500-meter run from 1896 to 1980. The winning times were(in minutes and seconds): 1896-4:33; 1900-4:06; 1904-4:05; 1908-4:03; 1912-3:57; 1920-4:02; 1924-3:54; 1928-3:53; 1932-3:51; 1948-3:50; 1952-3:45; 1956-3:41; 1960-3:36; 1964-3:38; 1968-3:35; 1972-3:36; 1976-3:39; 1980-3:38.

Construct a graph of the winning times for women's 100-meter dash from its origin in Amsterdam in 1928 to 1980. The winning times in seconds were: 1928-12.2; 1932-11.9; 1936-11.5; 1948-11.9; 1952-11.5; 1956-11.5; 1960-11.0; 1964-11.4; 1968-11.0; 1972-11.1; 1976-11.0; 1980-11.1.

Construct a graph of winning combined lifts in the super-heavyweight division since its origin in Antwerp, Belgium in 1920 to 1980. The winning lifts in kilograms are: 1920-269; 1924-517; 1928-367; 1932-380; 1936-410; 1948-452; 1952-460; 1956-500; 1960-537; 1964-572; 1968-572; 1972-641; 1976-441; 1980-441.

Have the students construct a bar graph displaying the gold medal results of the Olympic high jump from 1896 to 1980. (See below.)

Year	Winners	Distance (meters)
1896	Ellery H. Clark (USA)	1.81
1900	Irving K. Baxter (USA)	1.90
1904	Samuel S. Jones (USA)	1.80
1908	Harry F. Porter (USA)	1.91
1912	Almer W. Richards (USA)	1.93
1916	Games not held - World War I	
1920	Richmond Landon (USA)	1.94
1924	Harold Osborn (USA)	1.98
1928	Robert King (USA)	1.94
1932	Duncan McNaughton (CAN)	1.97
1936	Cornelius Johnson (USA)	2.03
1940	Games not held - World War II	
1944		
1948	John Winter (AUS)	1.98
1952	Walter Davis (USA)	2.04
1956	Charles Dumas (USA)	2.11
1960	Robert Shavlakadze (URS)	2.16
1964	Valery Brumel (URS)	2.18
1968	Richard Fosbury (USA)	2.24
1972	Yuri Tarmak (URS)	2.23
1976	Jacek Wszola (POL)	2.25
1980	Gerd Wessig (DDR)	2.36

Does the data produce a straight line form? (No. Therefore, there is not a true linear relationship between the two variables, years and meters. The greatest correlation between these variables occurred from 1948 to 1968.)

What data did you use on the x *(horizontal) axis?* (Years - manipulated variable)

What data did you use on the y *(vertical) axis?* (Meters - responding variable)

From your graph, predict what the jump heights might have been for the 1940 and 1944 Olympic Games.

1936 - 2.03 m
1940 — 4 years
1944
1948 - 1.98 — 12 years

Difference - 0.05 m x $\frac{4}{12}$ = 0.0166

2.0300 m - distance, 1936
- 0.0166 m

2.0134 m - prediction, 1940
- 0.0166

1.9968 m - prediction, 1944
- 0.0166

THEREFORE 1.9802 m - distance, 1948

This type of prediction is called INTERPOLATION. That is, you are predicting between (or within) two given values or observations.

There are other kinds of predictions based on variables that are not held constant. For example, social scientists may predict that a candidate for public office will win or lose by a certain percentage. Such predictions are often based on public opinion surveys of sample populations. The surveys, and therefore the predictions, are subject to the vagaries of human behavior and may, of course, miss the mark by a wide margin. Predicting the weather is also difficult in many places in the world because the relationships among the variables are so complex and the number of variables is very great. In other places, where the weather is the same much of the time, accuracy of prediction may be as high as 95 to 99 percent.

Students should learn to make predictions based on observations recorded in a table or in a graph. They should learn to identify those predictions they can state with confidence and those they may have reason to question. They should endeavor to test their predictions as often as possible.

*ACTIVITY...4...*With the cooperation of the physical education teacher, it would be instructive to stage some Olympic-type events.

Organize and run a 100-meter dash. Emphasize the metric aspects of this race by marking off the course in increments of 10 meters up to the final 100-meter mark.

Additional interest could be stimulated by measuring off 100 yards (9.14 m) to show the students the difference and similarity between meters and yards.

Make up a chart with each contestant's name and the elapsed time for each race. Award gold, silver, and bronze ribbons to the first, second, and third place winners. After the competition, announce to the students that the Olympic record for this race for women is 11.0 seconds co-held by Wilma Rudolph and Wyomia Tyus and the men's record for the 100-meter dash is 9.95 seconds, held by Jim Hines.

Organize and run a running long jump. A flexible, metric ruler would be ideal for measuring the distances but it would also be easy to use a meter stick to measure off and label distances from the take-off block into the pit area. The metric aspects of this event could be emphasized by placing a numbered marker every 10 cm along the jumping path. Again, chart the record of each contestant and award ribbons. Announce to the students that the Olympic record for women in this event is held by Kolpakova of the U.S.S.R., set in Moscow in 1980 with a jump of 7.06 m, and that the men's record is held by Bob Beamon of the U.S. in Mexico City, 1968, with a world record jump of 8.90 m.

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7-8 THE ART ELEMENTS OF DESIGN

INTRODUCTION...Both art and sports are expressions of a people's culture which should be valued for the entertainment they provide. They serve to enrich the lives of individuals by providing them with opportunities to relax, to play, to communicate, and to socialize. Art and sports are also a mirror of humanity, reflecting human struggle, accomplishment, victory, and defeat.

The purpose of this unit is to develop visual awareness and creative art skills through the application of the Art Elements of Design as utilized in our daily lives and as found in the Olympic Games.

These Art Elements of Design (space, line, shape, mass [or volume or form], color, value, texture) function as the visual language of art while the Art Principles of Design (limitation, dominance, balance, contrast, variation, repetition, rhythm, unity) become the tools and/or modifiers of this visual language.

OBJECTIVES...to correctly identify and list a minimum of three subconcepts for each of the seven art elements of design...to apply each of the seven art elements of design by creating a cut/torn construction paper collage design...to produce original and imaginative works of art using Olympic themes and Olympic performance criteria (confidence, pride, achievement, tenacity, etc.) while demonstrating knowledge and application of the art elements and principles of design.

NOTE...There should be available in the classroom a collection of photographs and objects representative of Olympic themes and events.

ACTIVITY...1...Observe and discuss design elements that may be seen in the immediate classroom environment and in art reproductions and Olympic photographs.

> *Give specific examples of design elements observed in the photographs.*

After viewing the reproductions and photographs, each student will select an Olympic theme or event which suggests types of geometric or free form shapes, colors, lines, textures, moods, etc.

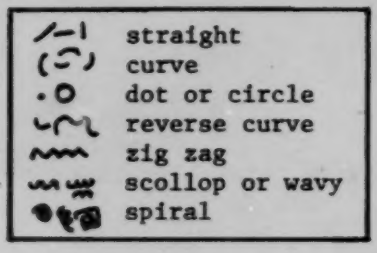
> *Select a 9" x 12" sheet of colored construction paper for use as a lower background surface. Using scrap and new construction paper, cut and tear representational, or non-image shapes that seem to suggest the selected theme or event. Volume is produced with a raised, scored, slit, folded, or three-dimensional, paper-sculptured form.*
>
> *Try numerous combinations and rearrangements of the shapes, textures, and volumes in an effort to produce a visual unity.*

Have the students paste the shapes to the background and place their creations on the bulletin board. Discuss with them their success in applying the design elements to their work while expressing an Olympic theme.

OBJECTIVES...to learn and draw the seven line symbols...to create a line design or "logo" representing a selected Olympic event...to transfer and apply this design to a raised-relief, papier-mache, cut-out medallion.

ACTIVITY...2...Share with the students representations of the seven line symbols

There are two basic lines, straight and curved. Combinations of these two lines create the other five line symbols.

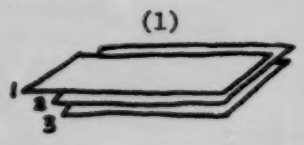


- *Where might we find examples of the seven line symbols in the Olympics?*

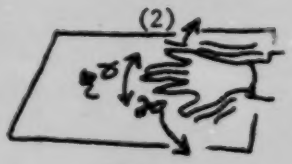
Using only these seven lines, could we create visual line symbols or images that remind us of, or look, like Olympic events?

Demonstrate the three-layer papier-mache method to the class.

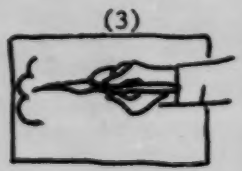
- *With pencil or felt pen, develop a 6" x 9", or 6" x 6", or round line design that represents an Olympic event.*



- *Pour one or two cups of water into a container.*
- *Mix in a small amount of wheatpaste until the mixture is the consistency of thin gravy.*



- *Place a 6" x 9" sheet of newsprint on the table.*
- *Rub or smooth the wheatpaste mixture over the surface of a sheet of newsprint.*
- *Add a second sheet to the top of the first sheet. Rub or smooth wheatpaste over the top.*



- *Add a third sheet to the other two sheets, again smoothing wheatpaste over the top.*

- *Transfer your line design to the three sheets of wheatpaste newspaper by lightly drawing in lines with a pencil.*

- *Line shapes on the three-sheet layer of pasted newsprint may be cut out with scissors.*

- *Combine or paste these three-layer line symbol shapes to form a medallion, or paste the three-layer shapes to another sheet.*

- *Your newsprint medallion may now be painted with tempera, acrylics, or spray paint.*

OBJECTIVES...to use the seven line symbols in creating visual Olympic messages, signs, or logos...to conceptualize a positive/negative space and shape composition...to recognize and describe a contour line drawing...to produce a number of colored line drawings that successfully appear as continuous visual motion...

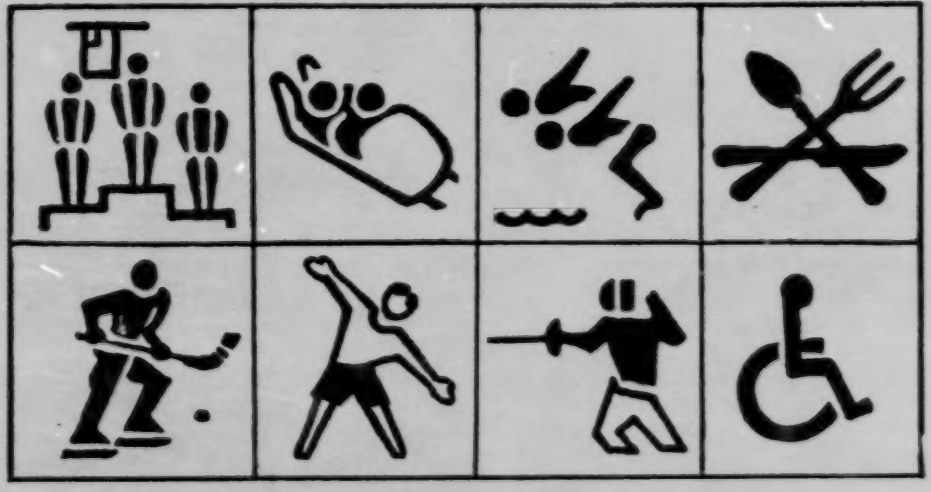
ACTIVITY...3...Collect and show a variety of visual symbols that we normally see each day in our cultures, including "no parking," "men," "women," "handicapped," etc. Similar symbols have been used in the Olympics since 1964 to convey information by visual means.

Review the seven line symbols. Have the students analyze the basic shapes of a posed figure, or refer them to Olympic symbols like those on p. 37. Emphasize the positive/negative shape relationships.

Design five or six pictorial symbols of Olympic events, themes, or happenings into 4" x 4" squares. (The creative students might investigate some of the proposed or newly adopted — table tennis or wind surfing — events in order that they might design an original symbol.)

Designed symbols may be executed with ink, brush, and pen; or with black felt-tip pens and markers; or with cut paper, scissors, and paste.

Completed, 4" x 4" symbols may be displayed individually or collectively to produce a dynamic, pictorial symbol mural of approximately 100 designs.



OBJECTIVES...to conceptualize a positive/negative space and shape composition...to create value changes and shape patterns through repetition of words...

ACTIVITY...4...Discuss positive/negative space. Look at Olympic sports pictures to observe examples of positive/negative spaces and shapes, value changes, and two-dimensional textural patterns. Discuss how a variety of shape areas could be created by lettering repeated word patterns.

Develop a composition planning sketch of Olympic athletics in action, events, or still life items. (Students may take athletic poses for others to draw.)

Select and repeat lettering words that describe or relate to the visual image.

Use a variety of lettered words to establish visual value patterns with ink or felt pens.

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OBJECTIVES...to recognize and describe a contour line drawing...to produce a sequential number of colored line drawings that successfully appear as continuous visual motion...

ACTIVITY...5...Show photographic studies of people, animals, things in blurred motion, or discuss and show sequential animation drawings. The little "flip" books of line action drawings are good examples.

A model (teacher or a student) assumes a pose that will allow for six continuous, extending outward or inward, sequential action poses. The model takes a pose of an athlete in action or in some phase of training. Example: a warmup, stretching exercise of "sit-ups."

Begin the first contour line drawing with purple crayon for pose one. All students complete the first drawing in about two minutes.

The model continues to hold the first pose while students select the second color of red. Students look at the model as the second pose is taken, by having the model keep hips in the same position while moving the body, arms, head, and legs only a few inches. Students draw a second sequential pose with red crayon. Start by drawing hips, up to head, to hips, out to feet.

Students select orange crayon, watch as the model again moves only a few inches to pose number three, and students draw sequential position number three.

The process continues for:

- Pose four, drawn with yellow crayon
- Pose five, drawn with green crayon
- Pose six, drawn with blue crayon

At completion of the six-colored sequential figure-in-action contour drawings, place all of the drawings next to each other to observe, compare, and discuss the illusion of motion that is visually created.

OBJECTIVES...to give expression to Olympic themes through the use of visual art skills, knowledge, and activities...to use participation in art experiences to further interest in the Olympic Games and the people participating in them...to provide a rationale for investigating costumes, art media, and cultural styles of the participating nations...

ACTIVITY...6...With the class, study artifacts, art history, and Olympic history to learn how sports and Olympic events have been depicted through the ages. Apply this newly-acquired perspective to the following visual arts and crafts activities.

- Create tempera paintings and crayon drawings using these themes:
  - My favorite Olympic event
  - An Olympic athlete in training

- A view of an Olympic village
- Olympic fashions (summer and/or winter)
- The opening ceremony
- Good sportsmanship

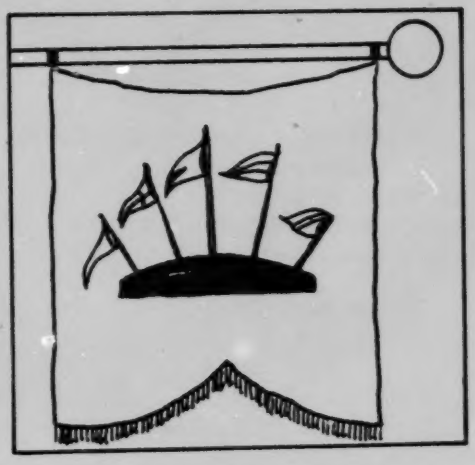
• Design a classroom or school crest (for an Olympic day).

• Illustrate student poems and essays which deal with Olympic themes.

• Design an Olympic flag or banner:

What kinds of words or pictures might be placed on an Olympic banner?

Create a banner 24" x 36" wide using kraft paper or newsprint. Draw or paint the design using felt pens, crayons, chalk or tempera paint; or, glue on colored paper cutouts. Cloth banners with felt cutouts glued or sewn on might also be attempted.



• Make small table flags of participating nations using construction paper, and straws or dowels. Place flags in a clay base.

• Photography:

Take "close-up" photos of athletes in action. Avoid long-range shots. Attempt to capture contrast of values (black, white, gray) and interesting action gestures.

• Papier-mache:

Make 3'- to 5'-high athletic figures from papier-mache. Construct supporting structure (skeleton) from corrugated cardboard and/or chicken-wire.

• Design and render Olympic commemorative postage stamps.

Prepare original design three to 10 times larger than actual stamp size. Use ink, colored pencils, felt markers, or paint.

- Write and illustrate an "Olympic Heroes" comic book.

Study comic book format, style of art, and layout of pages. Pencil in lightly the page layouts, illustrations, and "story line" content.

Complete finished art with india ink, felt pens, or colored pencils.

Staple or stitch double pages together. An alternative is to create the comic book in a commercial sketchbook that has wire gripper or glue-tape binding.

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HOST NATIONS 7-8

OBJECTIVES...to reinforce student understanding of geographical relationships...to learn about the culture of a selected, participating Olympic nation...to review notable events in the history of the Olympics...

ACTIVITY...1...Refer the students to a list of the nations which have been hosts to the Modern Olympic Games, summer and winter. Ask each member of the class to select a different host nation. Distribute outline (political) maps of the world to the students.

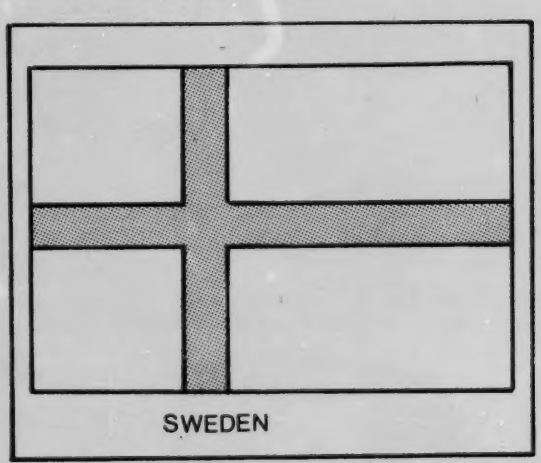
NOTE...Try to insure that the host nations for 1984 (Winter-Yugoslavia; Summer-United States) are selected by someone...

Locate and label your nation on the outline map. Identify the continents and label your selected country's neighbor nations on its continent. (Australia thus becomes a premium selection!)

Color the map, using distinctive shades or markings which will highlight your selected nation. (See next page.)

- *In what year were the Games held in this nation? Summer or winter?*
- *Describe any distinctive events which occurred during these Games or in the host nation at the time of the Olympics.*
- *What is your selected nation's capital? Is the capital city also the host city?*
- *What has been the general level of participation and performance by athletes from this nation throughout the years?* (e.g., participates only in the Summer Games; has sent athletes at <u>every</u> quadrennial; has been one of the top medal-winning nations for many years; etc.)
- *Make an 8 1/2 x 11 flag of the nation. Use colored construction paper or white paper and colored pencils or felt pens.*

Collect the world outline maps and the flags and display them as pairs as each student identifies aloud his/her nation, its location, and some of its "Olympitrivia."



Ask each student to search for an object or facsimile of a real object which suggests or represents his/her nation. (e.g., beer stein - either Germany; maple leaf - Canada; etc.)

*Sarajevo, Yugoslavia — Site of 1984 Winter Olympics

ACTIVITY...2...Instruct the students to prepare indepth reports about their nations: the people, culture, geography, and the roles of these nations in the world today (politics, trade, etc.)

- *Draw an outline map of the country detailing important cities.*
- *What are the nation's vital statistics?*
- *Describe its climate and geographical features (mountains, rivers, lakes, neighbors, location).*

- *Explain about the nation's governmental organization/type and outline its recent political history.*

- *What are some important national customs? What language is spoken?*

- *List the country's natural resources and its important agricultural and manufacturing products.*

If the students show considerable interest in these activities, much more time and effort can be put into the reports, with clippings, photos, etc. A completed, edited, illustrated country report could become one chapter in a composite Olympic Book of Nations. Furthermore, if the activity were to be shared with other classes, most or all of the Olympic nations would be included and the finished product would become a reference (that could be duplicated) useful throughout the school.

Sam the Eagle (on the right) — symbol/mascot for the 1984 Summer Games in Los Angeles

7-8 OLYMPIC FESTIVAL EVENT

All!

INTRODUCTION...the Olympics are used as a vehicle to teach existing curriculum material as well as the concept of Olympism because most young boys and girls either participate in some form of athletics or are familiar with the variety of sports entertainment available today. It is important to understand, however, that the Olympic Games do not manifest themselves in sport alone; they also cultivate the Olympic performer's mind and soul. The Greeks had a phrase to describe the harmonious development of the individual's mind, body, and soul; it is *Kalo Kagathia*. Today we refer to it as Olympism, an experience or process for everyone, not just Olympic athletes.

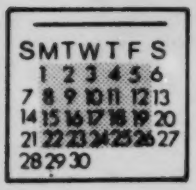
These materials are designed to promote this concept of Olympism as it relates to the physical world through sport and physical education activities. The physical education staff may provide the initial impetus for the organization of the schoolwide function. Once other teachers indicate an interest in the program, a steering committee can be formed and assigned the responsibility to develop plans for total school involvement.

PURPOSE...the purpose of this unit is to present a model for organizing a schoolwide Olympic Festival Event at the junior high school level. Ideally, this event invites participation from a variety of subject area disciplines. Since many schools conduct some form of annual event, assembly, bazaar, or festival, modification using an Olympic theme should be relatively easy.

OBJECTIVES...to provide a model for an annual, schoolwide event with an Olympic theme...to provide an opportunity for all disciplines to integrate the teaching of Olympic tenets and ideals with their own objective...to foster cooperation, participation, and competition through the festival event...to demonstrate the relationship of the academic subject areas to Olympism...

TIMETABLE

(4-week plan)



BEGINNING OF THE SCHOOL YEAR

ORGANIZATION OF THE OLYMPIC FESTIVAL EVENT

IMPLEMENTATION...depending on your school's population and grade divisions, the length of time of the schoolwide event and participation levels may vary. This model suggests a 4-week timetable, with the first three weeks devoted to activity and project development, culminating in a fourth week highlighted by the judging of these and the staging of the competitions.

STEERING COMMITTEE...A steering committee should be formed as early in the school year as possible. It is responsible for the preliminary planning, organization, coordination, and implementation of the schoolwide event. The committee should develop a schedule allowing enough lead time for all curriculum areas to complete their long-term unit classroom activities and projects. These activities would include the ones described below and others from the units in this publication. Specific dates for the Olympic Festival Event should be determined.

The committee should be made up of at least one teacher from each curriculum area and one student from each participating grade level. Each homeroom/classroom should elect a student representative who would attend special meetings called by the steering committee for the purpose of keeping all classes informed and involved in the organizational process. Try to keep the number of members on the steering committee to a minimum.

HOST ORGANIZING COMMITTEE...a homeroom may be elected to assume responsibility for "hosting" this special event. The host organizing committee should manage the preparations for the festival at the direction of the steering committee. Every homeroom should assume the identity of a nation which usually participates in the Olympiads.

ONE MONTH PRIOR TO THE 4-WEEK PERIOD

SCHEDULE OF ACTIVITIES...schoolwide assembly held to provide the student body with general information about the event. Show an appropriate film; stage a folk dance exhibition; provide a guest appearance by a well-known athlete or an Olympian; introduce the Steering Committee.

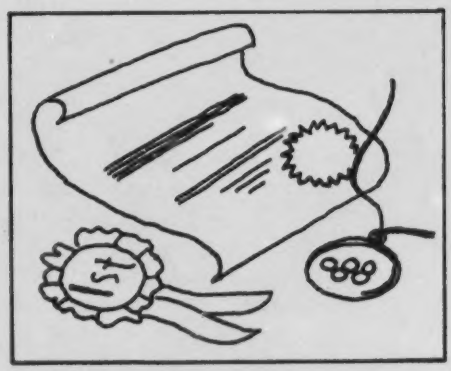
WEEK I

Classroom teachers review areas of responsibility:

- *Physical Education staff*...overall management of festival (with Steering Committee)...training, physical skills development... opening and closing ceremonies...track and field events; equipment; entries; scheduling; heats; officiating assignments; point tallies...

- *Math and science staffs*...academic entries and judging competitions...recording and analyzing final scores and standings...

- *Art staff*...awards - order or make; flags, signs, and posters...BEGIN NOW... Ribbons: Buy six colors of 2" ribbon; make each ribbon at least 4" long. Buy the colors of the Olympic rings and background - White, Blue, Red, Green, Black, and Yellow. Medallions: Prepare 1 1/2" to 2" dowel, cut to 1/4" thickness; drill a small hole at one edge. Paint each piece either Gold, Silver, or Bronze. Place a design on one side and the date of the event on the other. Use string for the chain...Certificates: Design several forms...supervise and manage an "Art Gallery" or "Museum" for exhibiting art objects and realia representing nations, sports, etc.; encourage contributions from the community...



WEEK I

- *Language arts staff*...equipment and supplies for all but track and field activities; P.A. system, record and tape players, projectors, records, tapes, films, books, etc...

- *Music staff*...arrange facilities (indoors)...opening assembly... music for opening and closing ceremonies...the band should record a good march for the parade of flags during the opening ceremonies...

- *Social studies staff*...resources and publicity..."eyewitness" reporting...compilation of illustrated account of the event; photos, interviews, reportage...contact the local university and arrange for resource people for the various events... senior citizens are great resource people...inform the news media of the festival. Kids love to see that 30-second shot of themselves or their school on the six o'clock news...ask your school cafeteria to serve some ethnic foods at least two times per week...

All committees submit lists of their anticipated needs (awards, equipment supplies, resource people, facilities) to the Steering Committee.

WEEKS II-III

CLASSROOM ACADEMIC PROJECT...all unit work that is done in the different curriculum areas must be coordinated with the overall production plan for the festival event. Decisions on how each curriculum activity will relate to the schoolwide event should be determined by the Steering Committee. Refer to the companion publication, The Olympics - An Educational Opportunity: Enrichment Units, K-6 for additional "Olympic Day" activities.

Physical Education...Early in the school year, start your fitness testing, identify children with weight problems, and sponsor various interest clubs. The history of the Olympics will be taught as it relates to each sport you teach during the school year. Always be ready to use a situation that lends itself to teaching one of the concepts of Olympism.

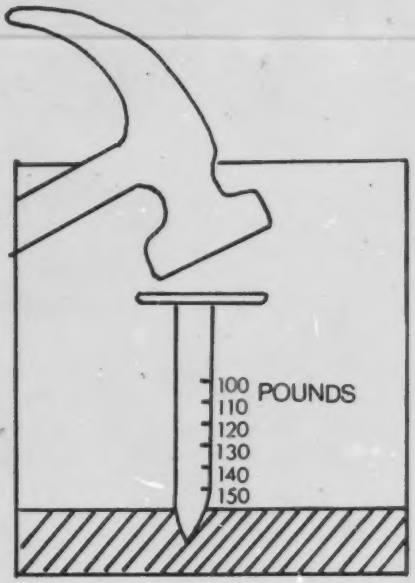
- Cover the major sport of the country each class has selected. Let students research the sport and, also, the most typical folk dance. Teach these and other typical sports and dances.

- Teach the typical folk dances of their selected countries. Prepare them for competition. Work with the music staff here.

- Request that a professional dance group perform for each grade level in a mini-assembly. Do this early in the year to increase interest.

- Stage class runs to their chosen countries. Compute the distances from the school to the capital cities of the chosen countries. Allow 5-10 minutes before each class for running. Record class miles and individual miles. Allow about three weeks and determine winners from mileage totals.

- Work closely with the nurse and counselor on a "Pounds Down" project. Provide nutrition counseling, individualized exercise programs, and small group counseling. Start this project early in the school year and continue it all year.



- Assign research topics:
  - The Olympics, Sport by Sport: examining the chronology of the introduction of new sports to the Games.
  - Compare school records with Olympic records.
  - Select an admired athlete and do a complete "background" on him/her.

- Situation Activities:

- Play a game without officials, captains, or rules.	AND THEN:	- Play with good officials and team captains and adhere strictly to the rules.
- Stack all good players on one team and poorer players on the other. Play a game.	AND THEN:	- Change the teams by evenly distributing skilled and less skilled. Play.
- Put all the "ball hogs" on one team with no instructions as to teamwork. Play.	AND THEN:	- Play a game emphasizing teamwork.

Have students evaluate the situation pairs. Ask them which situation of each pair was safer, more fun, etc.

- Teach the students techniques of officiating and keeping score. Set up practice schedules for noon games. These take place all school year. Start an "Officials Club." Conduct workshops on officiating techniques, rules, and performance evaluations. Use a "Golden Whistle Award," to be presented at the awards ceremony, as motivation.

WEEKS II-III

- Record the students' voices as they play a highly competitive game. Discuss the kinds of sounds they make. Analyze the tapes in terms of sportsmanship, fair play, etc.

- Explain the bad effects "choosing sides" has on some people. Discuss being chosen first, toward the middle, and last. Can the class suggest ways to avoid hurting people's feelings and still get teams?

- Administer the standard Fitness Test that is used by the school.

- After the students have selected the events they wish to enter during WEEK IV, the FESTIVAL, assist them in their practice for these competitions. Try to extol the virtues of all the individual sports you have introduced them to and which they have researched; there will then be a greater likelihood of a wide range of competitions for WEEK IV. Include combined sport events such as the pentathlon (with "local adaptation") and the decathlon.

Language Arts...Select from the other units in this publication and from the additional suggestions below.

- Poetry contest; collecting, writing, or reading
- Essays on athletes
- Olympic "Quickies;" writing announcements of events to be used on P.A. system
- Oratory; brief exhortations on issues, presented during lunch hour
- Study international picture signs. Post these throughout school as appropriate
- Foreign words and phrases, "hello," "thank you," "please," "good luck," "congratulations." Make school information signs (exit, gym, etc.) bilingual, using Greek.
- Spelling bees with Olympic concepts and related words (See APPENDIX, pages 123, 129.)
- Publish a newspaper/newsletter throughout the festival period.
- Hold a "book-a-thon," encouraging students to read as much Olympic-related material as is practical.

Science...

- Photograph athletes in action. Discuss with the class the muscles and muscle groups being used; evaluate form and motion.

- Study and explain the effects earthquakes have had on the ruins at Olympia, Greece.

  - *Do any of the Modern Games host nations have histories of earthquakes?*

- Select activities from WHAT SHAPE ARE YOU IN? and FOOD FOR THOUGHT.

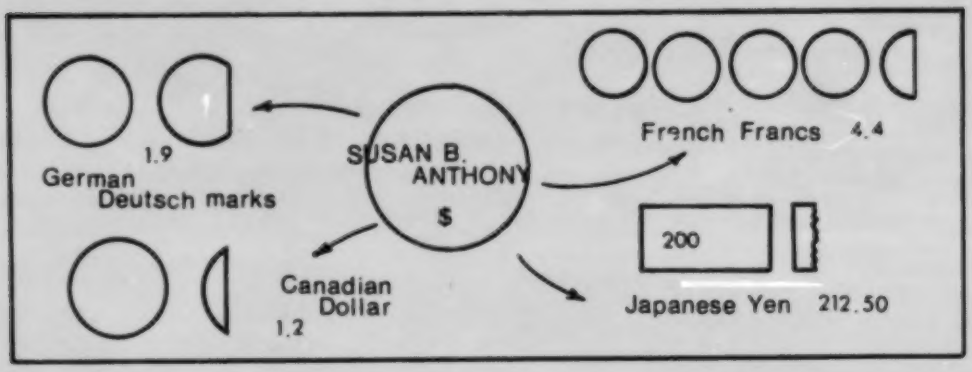
Mathematics... Involve the students in all recordkeeping aspects of the competitive activities, including graphing progress and results, tallying points, etc.

WEEKS II-III

- Devise methods for keeping the various statistics for the Olympic Festival event's academic competitions. Consider using the new portable computers now available in many schools.

- Design competition score cards.

- Start a money exchange on campus. Post daily the currency exchange rates for the major countries as they relate to the United States dollar.



- Refer to metric activities in the appropriate units of this publication.

Social Studies...

- Olympic accoutrements. Discuss how the rings on the Olympic flag relate to the world's continents. Prepare reports on the raw materials (their costs and sources), used to manufacture Olympic uniforms, medals, and equipment.

- Have the students collect recipes, organize them by nation of origin, and detect similarities from country to country. Publish a cook book for the student body. Try to have the lunchroom menu include national dishes when practical.

- Trace the routes the Olympic flame (torch) has taken from Athens to (1980) Lake Placid and Moscow and for earlier Olympiads. Prepare a projected route from Athens to (1984) Sarajevo and Los Angeles.

- Refer to other units for activities dealing with Amateurism vs. Professionalism; Olympic symbolism; Mythology and the Ancient Games; Violence in Sports, etc.

WEEKS II-III

Art...

- Design a class banner for each class after the students have decided which nation it will be.
- Create a logo to be worn on team outfits for the competitions.
- Prepare and maintain a bulletin board with photos of events and individuals.
- Design a team uniform for the festival. Estimate what it would cost to manufacture it.
- Construct posters depicting events from the real Olympics and the school's festival counterpart activities.
- Make name tags using Greek letters.

*Music...*Music has always been a part of the ancient and modern Olympic Games. While not Olympic events themselves, music contests were held during ancient Olympic festivals and Games. Start with a good history of music, through dance. Teach some music awareness and appreciation emphasizing the selected Olympic countries. Allow students to listen to and experience some of the similarities of music from different nations.

- Teach the Olympic Anthem to all students. If they cannot master the Greek, let them hum the melody. Perhaps an English translation would help. Record the anthem on a cassette so that students may listen to it at their leisure.
- Display ancient and modern instruments. If these are not available, perhaps a field trip to such an exhibit would suffice. Books and pictures would also be an appropriate substitute.
- Make an instrument, perhaps a flute, harp, drum, or stringed instrument. Enter these in competition.
- Teach each group a simple instrumental piece or song from its Olympic country.
- Conduct sing-alongs and serenades using national songs. Perform in the halls and in the lunchroom, especially when a national dish is on the menu. (See above, *Social Studies*.)
- Discuss where music is used most during the Olympic Games. (opening and closing ceremonies; gymnastics and skating routines)

WEEK IV

PROGRAM FORMAT...

*Opening Ceremonies...*Let these ceremonies establish a mood of dignity and appreciation which will reinforce the concepts of Olympism as the students perform.

- Torch ceremony
- Flag display — U.S., Olympic, state, school
- Parade of Athletes
- Olympic Oath (by principal, superintendent or invited dignitary)
- National Anthem and Olympic Anthem (sung by all)
- Release of doves (helium balloons)

Competitive Events...Each boy or girl may enter no more than three events and the relay. All entries must be in to the Physical Education Department one week in advance. All rooms are allowed three entrants for each event (four for the relays).

It is the responsibility of all students to be in the event areas. If they are not present when they are called for their event, they will be disqualified. They will be required to run in the heat and positions assigned to them. If they are running in lanes (dashes and relays), they must stay in their lanes until the judges decide the winner.

Ribbons will be given to the first four places in each heat and in each final.

All students not helping or not competing in any event must sit in the bleachers with class and banner. When a student has finished his/her event, he/she must move into the bleachers and sit down.

- Dash
- 200-meter
- 400-meter
- 800-meter
- 1500-meter
- Relays
- High jump
- Broad jump
- Triple jump
- Softball throw
- Frisbee toss

- Select 10 events from above for the decathlon and five from below for the pentathlon.

- Bicycle races
- Field hockey
- Soccer
- Volleyball
- Basketball
- Wrestling
- Push-ups
- Sit-ups
- Pull-ups

Closing Ceremonies...

- Awards
- Olympic Creed (principal or superintendent)
- Olympic Anthem and Exit Parade of Athletes

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MUSIC FOR THE SOUL

7-8

OBJECTIVES...to provide students with social interaction experiences through active participation in ensemble singing and instrumentation...to develop student skills through continuous practice in using gross and fine motor movements when learning to play musical instruments...to have students learn to sing, play, and listen to the music of various nations and become more sensitive to feelings of nationalism and cultural pride...

"And what shall be the education of our heroes? Can we find a better than the traditional sort? --- and this has two divisions, gymnastics for the body and music for the soul." *Plato*, from The Republic.

INTRODUCTION...there are many ways in which the themes of Olympism can be infused into both the classroom and performance programs of the secondary school. Both sport and music support an individual's search for expression. They involve values of commitment and discipline while striving toward a goal. They are both overt demonstrations of man's ability to participate actively in worthwhile endeavors; and, in an educational setting, they can play a major role in helping students gain self-confidence and awareness of others.

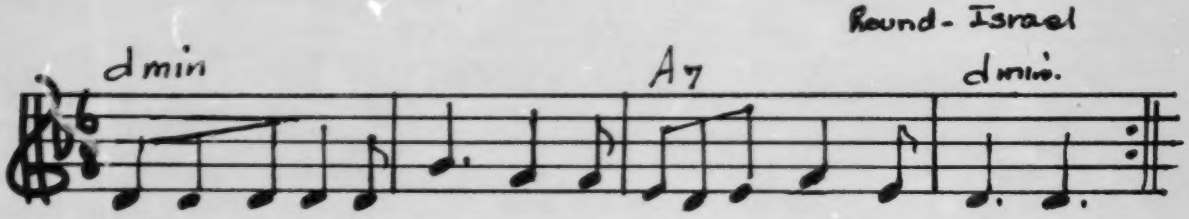
As a part of the music program, experiences can be adapted to bring out the concepts of Olympism within the established goals of musical sensitivity through involvement with singing, listening, and playing instruments. For example, part-singing in and of itself is an experience in responsibility and cooperation. Each singer becomes responsible for the end product. The same is true of ensemble playing where inter-dependence within the group will make or break the ultimate performance. Listening perceptively to music requires discipline and concentration. Often the text or the descriptive nature of a piece of music can be related to ideas of brotherhood, patriotism, and nationalism. Also, musical selections representative of national styles and folk idioms can add to cultural awareness.

Another important aspect of music study is that it provides an ennobling way to spend our leisure time — the way the Greeks perceived leisure to be. Our present society sometimes views leisure pursuits as being largely passive and "resting" in nature. We would profit from consideration of the Greek ideal of active participation in a worthwhile experience as the best form of leisure and recreation. Music is one of these experiences.

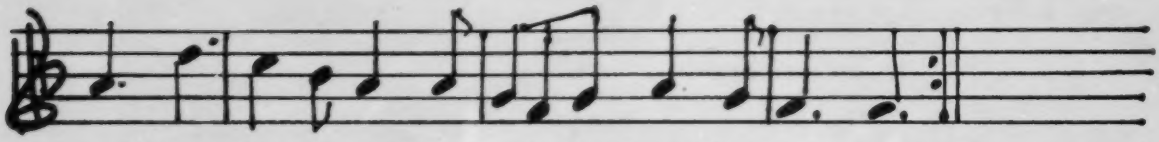
Finally, the study and performance of the music as used in the Olympic games, including the "March" and "Anthem," will expose students who are in bands, orchestras, and choirs to the importance of music as an integral part of man's festival occasions thus giving these students a sense of pride in their musical achievement.

*ACTIVITY...1...*Songs of Brotherhood. Sing the following song with enthusiasm and rhythmic flow. Sing as a round. Add the descant which can be sung an octave lower for chanting voices. Create an ostinato by using a melodic or rhythmic fragment taken from the song and repeat throughout. Add instruments in improvised or predetermined fashion. Accompany with harmonic instruments (autoharp, etc.). Refine both singing and playing by describing ways they could be improved given the expressive and musical qualities of the song.

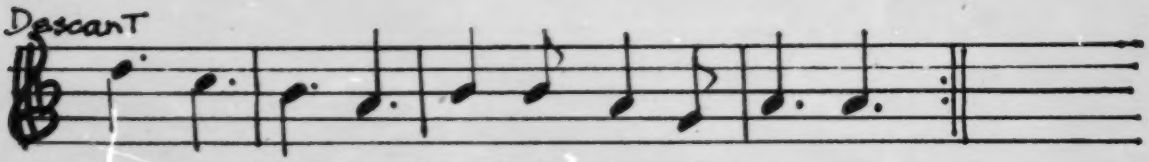
"How Good It Is My Brothers"



How good it is my bro-thers to meet and sing to- geth-er.



Oh how good it is to meet and sing to-geth-er



Come my broth-ers, meet and sing to- geth-er.

Discuss the role that songs can play in developing feelings of unity and brotherhood among a given group. Allow students to suggest other songs taken from their past experience that provide the same impetus, such as "He's Got the Whole World in His Hands."

*ACTIVITY...2...*Universal Musical Spirit. Chant the "Hello's" on the next page. Discover the differences between duple and triple meter.

Change the chants by inserting different "Hello's" from other countries. Notate new patterns if desired.

Add expressive controls by varying dynamic levels and accents. Add instruments.

DUPLE 2/1
Ostinato: Bue-nas | di-as | Bue-nas | di-as . . . . . .
(Spanish)
Add: Bon-jour, Ya-ta-hay, Sa-la-mat, Te-kan-yas.
(French) (Navajo) (Indonesian) (Greek)
TRIPLE 3/1
Ostinato: Na-mah-stay, Ne-mah-stay. . . . . .
Add: O-hi-o go-Zai-mas, | Eh-he-len wa | se-he-len.

Other languages: *"Dzien Dobry"* - Polish; *"Guten Tag"* - German; *"Neehowma"* - Mandarin; *"Aloha"* - Hawaiian; *"Jambo Sana"* - Swahili.

Have students describe their own cultural backgrounds, countries from which ancestors came, and languages spoken at home. Compile a list of greetings taken from the class and create additional chants. Discuss the feelings of acceptance that come from sharing some aspect of our culture with others.

ACTIVITY...3...Two New Musical Frontiers:

Ocean (deep) ⟵⟶ Outer Space (high)

Two composers, Alan Howhaness and Gyorgy Ligeti, have written compositions that are on the frontiers of both musical and technological progress. They are truly musical pioneers. Both can be found in Sound, Shape, and Symbol, NEW DIMENSIONS Series, American Book Company.

Listen to "And God Created Great Whales," by Howhaness. Follow a listening guide or call chart. The composer has used tape recordings of humpback whales singing underwater as the basis for this work. The tapes were recorded off the shore of Bermuda by a research zoologist. They have been "shaped" by using higher and lower speeds and integrated into an orchestral work. Discuss the Rondo Form of the music when the whale songs are alternated with a pentatonic theme by the orchestra.

Listen to "Atmospheres" by Ligeti. Discover the musical ways this composer used electronics to give the illusion of outer space with vast distances and the feeling of the unknown.

Discuss the many ways music has reflected human development and advancement. Relate to the idea of responsible leadership in every field — including music.

Use the composers above as examples of musicians who were interested in going beyond the usual in their field and have, thereby, contributed to progress.

- How well were the students able to follow the form of the "Whale" piece?

- Could they relate the scientific advancement in technology of ocean and space research to man's leadership potential and responsibility for meeting his full capacity?

*ACTIVITY...4...*Anthem Competition. Try this competition which could involve both the instrumental and choral parts of the school program. Discuss ideas for lyrics, e.g.: freedom; peace; nationalism; brotherhood. Invite a musician from the community to judge the results. Feature the winner at the Olympic Festival Event.

Choirs: Listen to the original "Olympic Hymn," composed in 1896 by Spiro Samara and di K. Palama.

- *Why is it difficult to sing?*

Discover the pitch and rhythm problems of text in relation to melody.

Try to have it translated into English and/or narrate the meaning prior to performance.

Study the form and structure of the "Anthem." This could follow the singing of several anthems out of the choral repertoire typically studied in rehearsal. Ask for several interested students who might want to compose an anthem on the themes of "Olympism" for use in a concert performance or at the Olympic Festival Event in your school.

Sing excerpts from Lest We Forget, an American Cantata sung at the Summer 1932 Olympic Games in Los Angeles. Bring out the style in the writing for this musical period. (Music available from the Library of Congress, Attention: Mr. Charles Sens, Music Reference Department, Library of Congress, Washington, DC 20540.)

Band/Ensembles. Listen, study, or perform the following (or similar) list of fanfares. Discuss the importance of "entrance" and "exit" music at festivals, at the Games, and at other events throughout history. The list below represents fanfares of different styles and periods. End this study by inviting gifted students to compose their own fanfares to be performed at the school's Olympic Festival or other similar event. (All of the pieces below can be ordered from Robert King Music Company, 112 Main Street, North Easton, MA 02356.)

"Fanfare" C.P.E. Bach (3 Trumpets, Timpani).

"Concerto" Altenburg (7 Trumpets, Timpani).

"Fanfare" from La Paris (Mixed Brass).

"Fanfare" William Walton (Full Brass Choir).

"Fanfare for the Common Man" Aaron Copland (Full Brass, Percussion).

Instrumental Groups. Perform an appropriate arrangement, (Full Orchestration, Brass Ensemble, etc.,) of "Rondo" by Mouret, sometimes known as "The Masterpiece." Relate it to the theme of the Masterpiece Theater on television. Also point out that this selection was used for the 1976 Olympic Games in Montreal. (Also available from King Company.)

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7-9 OLYMPISM

OBJECTIVES...to impart an understanding of the concept of Olympism which will be of use to students in their everyday lives...to help students develop a more positive attitude as citizens in a multinational world society...to emphasize the concepts of sportsmanship and true competition as a means of minimizing anti-social behavior...

BACKGROUND...As contemplated and instituted by Pierre de Coubertin, the Modern Olympic Games have become, to many people, more than merely a quadrennial collection of sporting events. De Coubertin hoped that the Games would promote "the development of those fine physical and moral qualities which are the basis of amateur sport...and to bring together the athletes of the world in a great quadrennial festival of sports, thereby creating international respect and goodwill and thus helping to construct a better and more peaceful world..." Therefore, the values inherent in competitive activity...sportsmanship, brotherhood, cooperation, camaraderie, fitness, achievement, pride...are the centerpiece of this unit and this publication...

ACTIVITY...1...Consider with the class the following list of "incredible" Olympic feats. Discuss with them the circumstances surrounding these events. Use the book, Incredible Olympic Feats, by Jim Benagh. (See REFERENCES on page 52 .)

- *Are there other feats, not listed here, that you know of which would qualify as "incredible?"*

For each of the following accomplishments, determine which of the Olympism concepts on page 123 seem to represent the achievement described. If the words on this list fail you, suggest some of your own.

- In the 1912 Olympics, G. E. Ruchs, a member of the German soccer team, scored a record 10 goals, the best ever by an Olympian.

  - *If you have ever watched a soccer game you would realize how difficult a feat this was. Do you think the competition was unusually poor or did G. E. Ruchs make a "superhuman" effort?*

- The "hat trick" is ice hockey's measure of a good game by a scorer-three goals in a game. Harry Watson, a member of the championship Canadian team in the 1924 Olympics scored a total of 13 goals, an Olympic record.

  - *Find out how many games Harry Watson played in. Were these 13 goals in one game?*

- *Does the United States' hockey victory over the Soviets for the gold medal in 1980 (Lake Placid, NY) qualify as an incredible feat?*

- Often called the greatest Olympian of modern times, Jesse Owens, at the 1936 Olympics in Berlin, won the 100 meters, set the 200-meter record, was on the 400-meter relay team which won, and set an Olympic record 26 feet, 5 1/4 inches in the long jump competition.

  - *What was at stake, in the minds of some, at these Berlin Olympics?* (Aryan supremacy.)

- Willy Rogeberg, a Norwegian marksman in the 1936 Olympics, had 30 shots at a 50-meter target with his .22 caliber rifle. He made the best of them, hitting the bullseye each time. His perfect score of 300 was the first ever witnessed in any kind of competition.

  - *What women's event in the 1976 Olympics produced another perfect score...the first ever in that event?*

  - *Discuss what <u>perfect</u> means. In the case of the 1976 perfect score, does the nature of the event make it possible or impossible for that particular <u>performance</u> (not score) to be exceeded? Contrast this with the target event in 1936.* (Judgement versus measurement)

You may wish to develop similar discussions with the additional feats described below.

- At the age of 17, Bob Mathias won the decathlon in the 1948 Olympics in London. In 1952, he returned to win the decathlon at Helsinki.

- Laszlo Papp, a member of the Hungarian boxing team in the 1948, 1952, and 1956 Olympics is the only man to have won three gold medals in Olympic boxing.

- Emil Zatopek, a Czechoslovakian runner, won not only the 5,000- and 10,000-meter events, but accomplished the incredible feat of winning the marathon as well at the 1952 Olympics in Helsinki. This has often been called the greatest distance-running triple in history.

- In the 1956, 1960, and 1964 Olympic competitions, in gymnastics, Russian Gymnast, Larisa Latynina, won 18 medals, more than anyone else in the history of gymnastics competition.

- In a game against the Japanese basketball team during the 1960 Olympics, America's Jerry Lucas put on the greatest display of marksmanship in Olympic history by shooting 14 times from the floor and making all 14 shots. For the entire competition, Lucas made over 70 percent of his field goal attempts.

- In the 1920 Olympics at Antwerp, Oscar Swah, a Swede, won a silver medal in a shooting category at the age of 73. This made him the oldest medal winner ever.

*ACTIVITY...2...*A popular means of gauging students' opinions is the continuum exercise. Draw a line on the chalkboard. At the ends or extremes of this line, place statements describing positions as completely opposite from each other as is possible regarding the subject under consideration. This exercise encourages students to take a position and consider alternative points of view. Also, it shows students that the responses to a subject or issue cannot always be stated in black and white terms. The continuum exercise leads students to the realization that there may be a large number of positions and attitudes in response to a particular subject or issue. For example:

The U.S. boycott in 1980 was necessary — Yes, but... / No, but... / maybe — The boycott was unwise and unfair

Amateurs only — Amateurs and Professionals

Winning is everything — If you can't win at least you can play the game well — Participation is the name of the game

*ACTIVITY...3...*Ask each student to choose and analyze the life and career of an outstanding American Olympian in such a way that the student's analysis becomes a reflection of his/her own attitudes and beliefs about life. Some possible subjects for the investigation are:

- Bob Mathias - Decathlon
- Wilma Rudolph - Track/Field
- Mark Spitz - Swimming
- Jim Thorpe - Track/Field
- John Naber - Swimming
- "Babe" Didrikson - Track/Field
- Peggy Fleming - Figure Skating
- Eric Heiden - Speed Skating
- Johnny Weissmuller - Swimming
- Beth Heiden - Speed Skating

Suggest that the students consider the following questions as they examine the lives of these American Olympians.

- *What was there in the life of the man or woman you have chosen that interested you?*
- *Are there any things in your own life which are similar to this athlete's life?*
- *For what thing(s) did you admire this person the most?*
- *Have you known any other adults who have these qualities?*

- *What were the achievements of this Olympian?*

- *Were his/her goals or aims at all like any you have dreamed of for yourself?*

- *What difficulties or obstacles did this athlete encounter?*

- *Where did he/she display his/her greatest courage?*

- *Do most great Olympians experience periods of failure and frustration in their lives? If so, how do they handle this failure or frustration? How do you handle it?*

ACTIVITY...4...Use the following statements as springboards for discussions about a number of concepts we understand to be essential elements of Olympism.

- The Olympic Games should be held only between the United States and the Soviet Union since these two countries win most of the medals anyway.

- Olympic athletes should be paid a salary to participate in the Games.

- Good sportsmanship is displayed only by those athletes who do not really care about winning.

- There is too much discrimination against female athletes.

- Too much money is spent on the Olympic Games; money which could be put to better use for housing, education, etc.

- Most of the judging in the Olympics is biased in favor of the host country.

- The Olympic Games should be conducted at a permanent site in a country like Switzerland or Greece because they are too expensive to be operated by a different host nation every four years.

- Violence does not belong in the Olympic Games. Discuss the types of violence that exist in sports.

ACTIVITY...5...Role playing is an important values-eliciting strategy. Students welcome the chance to take on a new identity in a temporary and protected situation. The following scenario deals with the spirit of Olympism and its effect upon athletes.

As an American athlete about to participate in a sporting event, you are walking to your room in the athletic dorm to collect your equipment. As you do, you pass a room where the door is ajar. You notice a close friend, who has been acting nervous and apprehensive about the event he is about to enter, tampering with another

athlete's equipment. The athlete whose equipment is being tampered with is considered by many a great athlete and sure to win the event your friend is entered in. You stop, enter the room, and confront your friend. What will you do or say to him?

ACTIVITY...6...Encourage students to list their preferences regarding a list of career alternatives and then to discuss and defend their selections.

List the following professions in order from(1), most important, to (8), least important, to you.

- *Law enforcement*
- *Medicine*
- *Law*
- *Teaching*
- *Electronics*
- *Professional athletics*
- *Religion*
- *Auto repairs*

- *What training, education, dedication is necessary to succeed in one of these professions?*

- *Why did you select as you did?*

- *What is the average ranking of professional athletics?*

- *How "open" is this field compared to the others?*

ACTIVITY...7...Share the following quotes with the class as an introduction to a discussion of courage.

- "Courage is generosity of the highest order, for the brave are prodigal of the most precious things." *C. C. Colton*

- "True Courage is to do without witness everything that one is capable of doing before all the world." *La Rochefoucault*

- "Courage is like love: it must have hope to nourish it." *Napoleon Bonaparte*

- "Courage leads starward, fear toward death." *Seneca*

- "Brave men are brave from the first." *Corneille*

- "The courage of the tiger is one, and the horse another." *Ralph Waldo Emerson*

- "Ultimate bravery is courage of the mind." *H. G. Wells*

- "Grace under pressure." *Ernest Hemingway*

- *What does the word "courage" mean to you?*

- *How do you think courage manifests itself?*

- *Do you think everyone possesses courage?*

- *Are you proud of your level of courage? Discuss.*

- *Are Olympians possessed of more courage than the average person? Why? If not, why not?*

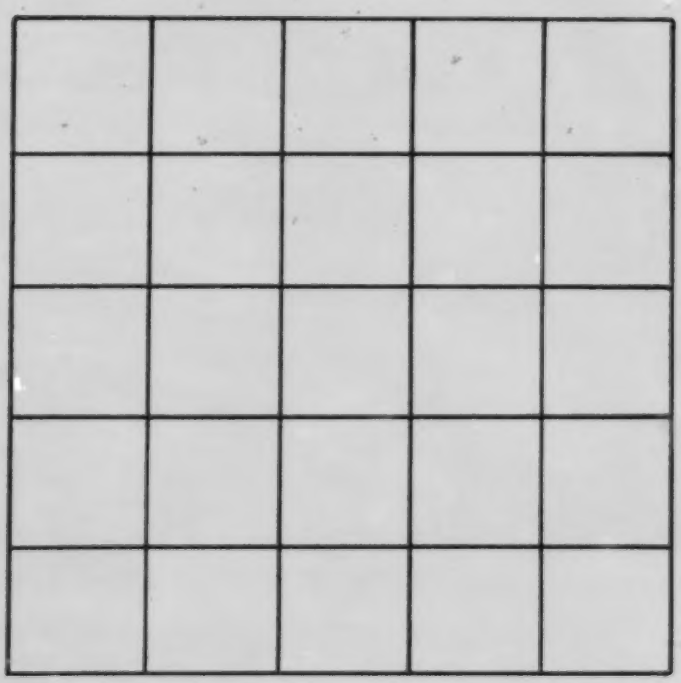
After selecting other desirable Olympic and human qualities, use a reference such as Bartlett's Quotations to collect phrases similar to those above for class discussion.

ACTIVITY...8...Games involving individual or group "competition" and "winning" may also be used by a teacher to complement more traditional teaching strategies and introduce greater variety into instruction on Olympism. The quiz game format taken from such popular daytime television shows such as Hollywood Squares and Jeopardy can easily be adapted by a teacher for use with this unit. These activities are generally used to test student recall, recognition, and comprehension of information and can serve as excellent review devices.

The following game, a variation of the "Tic-Tac-Toe" game and Hollywood Squares television quiz show can be used by teachers with their classes. Procedures:

- Members of Teams "X" and "O" will be given the opportunity to match their knowledge of the Olympics against that of the class and the other team of contestants.

- Each team will be comprised of three class members. The seating arrangement for the remaining class members will constitute the "game board."



- The teacher should act as "emcee," using a list of questions which the students have collected through research and study about the Olympics.

- During each of its turns (alternating with the other team), a team will be asked to select a box on the game board. The class member whose seat corresponds to that box will be asked a question about the Olympics.

  If he or she does not know the answer, the individual should try to "bluff" the team into thinking he or she has the right answer. After the class member has answered the question, the team will be asked to either agree with the answer by stating "Yes, that is correct" or disagree with the response by indicating "No, that is not right."

- Should a team respond correctly, it will receive a designated number of points and have its letter "X" or "O" placed in the appropriate game board box. No more than one "X" or "O" can occupy each box nor can the box be used again.

- If an incorrect answer is given by a member of a class, an individual team can receive bonus points for correctly answering the question, except in the case of a True-False item.

- The game can be ended by either team by stringing five consecutive X's or O's in a column, row, or diagonal on the game board. Should this not be achieved by either team, the game would end when all the boxes on the game board are filled in.

  In this latter instance, the winner would be determined by the total number of points awarded for correct and corrected answers.

Sample questions follow:

	Key
1...The Ancient Games were first held in which of the following countries? (a) Italy (b) Germany (c) Greece (d) Spain	(c)
2...The first of the Modern Olympic Games were held in (a) London (b) Barcelona (c) Rome (d) Athens	(d)
3...(See 2...above)...in (a) 1876 (b) 1896 (c) 1906 (d) 1916	(b)
4...The Olympic Games are held every (a) 2 years (b) 4 years (c) 6 years (d) 8 years	(b)
5...The Olympic symbol is (a) 4 interlaced squares (b) 5 interlaced rings (c) 3 interlaced triangles (d) 5 blue stars	(b)
6...Which of the following is not an Olympic sport? (a) skydiving (b) "football" (c) judo (d) yachting	(a)

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Key

7...The 1980 Winter Olympics were held in (a) Los Angeles (b) Montreal (c) Moscow (d) Lake Placid (d)

8...United States athletes who participate in the Olympics are selected to represent our country by which of the following methods? (a) nominated by the President's Council on Physical Fitness (b) try-out method (c) drawing of lots (d) knowing the right answers to a written test (b)

9...The second-place winner in an Olympic event receives (a) a silver medal (b) a gold medal (c) a bronze medal (d) a certificate of award (a)

10...Which of the following drugs can be used by athletes participating in the Olympic Games? (a) morphine (b) amphetamines (c) cocaine (d) none of the above (d)

11...Olympism represents (a) fair competition (b) equal competition (c) good friendship (d) all of the above (d)

12...The 1984 Summer Olympics will be held in (a) Moscow (b) Paris (c) Los Angeles (d) Berlin (c)

13...I was the first American woman to win a gold medal in the Olympic Games. (a) Betty Schwartz (b) Kathy Rigby (c) Margaret Abbot (d) Gretchen Fraser (c)

14...In the 1948 Olympic Winter Games at St. Moritz, Switzerland, this American skater won the men's figure skating title and repeated four years later. He is now a television commentator for figure skating. (a) Eddie Eagan (b) Mark Spitz (c) John Paine (d) Dick Button (d)

15...This American athlete won the discus throw in four consecutive Olympic Games - 1956, 1960, 1964, and 1968. No other athlete in the history of the Olympic Games as accomplished this feat. (a) Willis A. Lee (b) Al Oerter (c) Jesse Owens (d) Jim Thorpe (b)

16...In Olympic competition, the United States has enjoyed its greatest success in men's swimming events. TRUE or FALSE. FALSE

17...The first Olympiad of modern time was celebrated in Athens, Greece. TRUE or FALSE. TRUE

18...Olympic Games were not held in the years 1916, 1940, and 1944 because of a lack of funds on the part of the host countries. TRUE or FALSE. FALSE

19...During the award cermony in each event only the national anthem of the country of the winner is played. TRUE or FALSE. TRUE

	Key
20...In ancient Greece the Olympic Games were held in honor of the god _____.	ZEUS
21...The modern pentathlon consists of (a) fencing (b) shooting (c) swimming (d) all of the above	(d)
22...Which is America's largest team participant sport? (a) baseball (b) softball (c) basketball (d) football	(b)
23...Indoor swimming had its origin in the United States. TRUE or FALSE.	FALSE
24...Of the following Olympic sports, which does not have a professional counterpart? (a) soccer (b) ice hockey (c) basketball (d) gymnastics	(d)
25...Sugar Ray Leonard, Leon Spinks, and Howard Davis are Amercian athletes associated with the Olympic sport of _____.	BOXING

RESOURCES...

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OBJECTIVES...to improve research skills...to develop skills in written and oral expression...

ACTIVITY...1...Some of the most interesting events associated with past Olympics are described in almanacs, encyclopedias, and other reference works which can be found in the classroom and in the school library or media center. Ask students to find the answers to the 20 questions below, using a format similar to the one shown.

Questions	Answers	Sources
1...What Greek God was honored at the Ancient Olympic Games?	Zeus	World Book Encyc., Vol. G (Greece)
2...What is the traditional "home" of the Olympics?	Athens, Greece	
3...What is the chief difference between "professional" and "amateur" athletes?	Professionals receive money	(Sources will vary)
4...Who was black Africa's first gold medal winner in the Modern Games? What did he wear on his feet?	Bikela (1960); nothing	
5...Who was the only two-time winner of the marathon?	Bikela (1960 & 1964)	
6...Why were the Olympics of 1940 and 1944 cancelled? In what other year were they cancelled and why?	World War II; 1916; World War I	
7...Which Olympic event was introduced by the Swedes in the early 1900's?	Javelin	
8...Why did Christians not approve of the Ancient Games in Greece?	The Games honored "pagan" gods.	

9...When the Olympics declined into a mere circus, what emperor abolished them and when?	Theodosius; 394 A.D.	
10...Who founded the Modern Olympics? When? Where? Why?	Baron Pierre de Coubertin; 1896; Athens; to reunite the world through sports.	
11...In the Modern Olympics, in what event were women first allowed to participate?	lawn tennis	
12...Who was the grandson of the Indian, Black Hawk, and in what year was he "The World's Greatest Athlete?"	Jim Thorpe; 1912	(Sources may vary)
13...Why were all his trophies returned to the Olympic Committee and his name taken off the official records?	He had played semi-pro baseball in 1910, which made him a paid professional, and therefore ineligible.	
14...What is the smallest number of countries that can be entered to schedule an event?	12	
15...What does the Olympic flame symbolize?	Peace and friendship	
16...There is no formal recognition of any nation as "winner" of the games; however, unofficial team scores are usually kept by whom?	Sportswriters and the media	
17...How many events are in the pentathlon? In the decathlon? In the biathlon?	5; 10; 2	
18...What was the name of the American black who won four gold medals (including a team medal) in 1936?	Jesse Owens	
19...In the 128th Olympiad, what event was won by Belische, a woman of Macedonia?	Chariot race	
20...When was the Olympic flag first used?	1924	

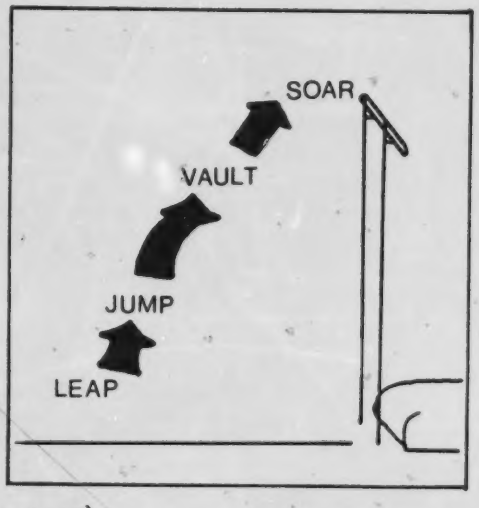
*ACTIVITY...2...*Conduct a language arts Olympics in the classroom by using the "events" described below. Devise a point system based upon the relative difficulty of the events.

- The Put Shot: A timed event in which the contestants use dictionaries to look up the word put. They correctly use the word in sentences to illustrate its different meanings including idiomatic expressions (put out, put on, put off, etc.).

- The Word Throw: Write several difficult spelling words on 3 x 5 cards. Contestants must spell the word correctly to receive their cards; then toss the cards for distance; longest toss wins.

- The Faster, Higher, Stronger Race: Contestants must give the comparative and superlative forms of words called out. As in a spelling bee, the last one out wins.

- The Synonym Leap: Students must write as many synonyms for the word "leap" as they can in the allotted number of minutes.



- Spelling Bee with Teams: Two spellers per team; one must do the first syllable of the word, the other must finish.

- World's Strongest Word: Contestants must write down the greatest numbers of words denoting strength, power in the allotted time (e.g., muscle, force, speed, lift, tear).

- World's Longest Sentence: Contestants must write a single correct sentence, correctly punctuated, of more than 25 words to qualify. Final heat is the longest correct sentence one can write. Ten points for perfect work with subtractions for errors, as in the diving and gymnastics competitions at the Olympics.

- Team Scrabble or Crossword Puzzle: Two teams play against one another in Scrabble or in executing the same crossword puzzle; one person on each team is the mover or writer. There should be a time limit for each move in Scrabble (one minute) and for the completion of the puzzle.

- Long Poem Writing: Each student writes a poem in a form which has been studied in class. The criteria to be used in determining a winner are:

  - Number of lines
  - Word count
  - Appropriateness of theme; i.e., an Olympic theme using words from the motto, the oath, and other Olympic writings.

ACTIVITY...3...Test the students' skill with the word-finding puzzle provided below.

Directions: *The letters spell words which go from left to right, right to left, up, down, and up and down diagonally. As you find a word, circle it and check it off the list of clues. When you have checked off every word listed, and the three completion quiz answers, you will have leftover letters. Unscramble these leftover letters (12) to find the solution.* (Solution: A C H I E V E M E N T S)

Puzzle

S U R E E P O C A S D R A Y L
C P C A A T O E Z A M A L W S
I F E C L A E O T S A F A T O
P I E E C U H L L H R R A R E
M N G H D S P B H E C R E L G
Y I E N A G R O T T T H Y N A
L S R L I E N T P C A T I R M
O H P E P N U I O H S M S A E
R S I U T B N N N C M A E T R
C E S S R A D I B I F N K S I
H E C A L I W R W N A Y O R C
A T V O T A E S D U M R R E A
M O I I R A D A V M O A T P N
P I O M S D S E S E U C S U M
E N X T E H S N M E S E T S S

Clues

Amaze
American
Athlete

Bravo
Breast
Butterfly

Champ
Coaches
Condition
Cope
Crawl

Dash

Ease

Famous
Fast
Finish

Hero

Many
Mix
Munich

Pact
Pool
Popular

Race
Records

Speed
Splash
Start
Strokes
Style
Superb
Superstar
Sure

Time
Training

Water
Winning

Yards

Mark Spitz was the star of the Munich _____ *(O-8).*
His sport was _____ *(S-8), in which he won many* _____ *(M-6).*

(The clues, O-8, S-8, and M-6, identify the first letter and the number of letters for each quiz word.)

MYTHS & FABLES

7-9

OBJECTIVES...to recognize the important elements of fables and myths...to understand the meaning of a moral...to learn of the relationships between mythology and the Ancient Olympic Games... to write "Olympic Fables" which teach a specific moral...to write an original, modern myth...

BACKGROUND...The Olympics originated as religious festivals in honor of the greatest of gods, Zeus. The festivals were observed by entire communities and were celebrated near his shrine. The idea then developed that the gods themselves were present but were invisible and delighted in the services and the contests.

ACTIVITY...1...Orient the students to the modern nation of Greece by locating it on a map of the world. Involve students in the following activities, using the activities and questions in HOST NATIONS on pp. 27-29 as a guide.

Describe Greece's location in terms of neighboring countries and the continents.

Prepare a brief report on Greece – Its Past and Its Present. Use an encyclopedia or your textbook (if appropriate).

ACTIVITY...2...Provide the students with background information concerning Greek Mythology. (See REFERENCES, page 61 .) Explain that throughout history humans have created stories to explain the origin and order of the universe.

The Greeks believed in the powers of supernatural gods. Many stories, called myths, describe the adventures of the gods and how they influenced life on earth. Being unsure of the outside world and of the vast ocean surrounding them, the Greeks imagined that monsters and beasts inhabited the earth.

Introduce the class to the "characters" of Greek mythology. (See APPENDIX, page 126.) Point out that the Greeks valued beauty, wisdom, and the arts. Many of the gods and goddesses represent these ideals.

What other aspects of the universe are represented?

If possible, show pictures of the different gods as they are introduced. Explain that the gods are also called "Olympians," in honor of their sacred home, Mount Olympus.

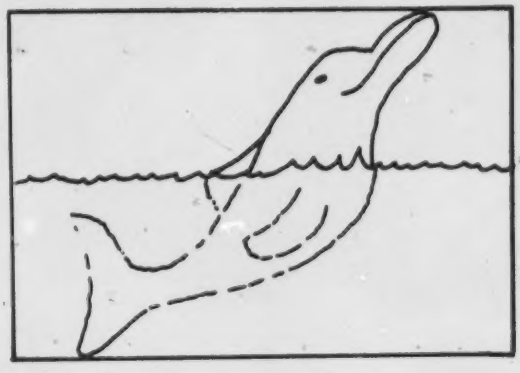
ACTIVITY...3...Using the blackboard or a transparency and overhead projector, outline the structure of a myth. Myths deal with the:

- Relationship between man and gods

- Relationship among gods themselves
- The ways in which men accept destiny
- Man's struggle with the forces of good and evil

Discuss these elements as they apply to myths that the class will now read. Explain that myths often describe one of the following natural phenomena:

- Creation; e.g., the creator of man, and man's best friend, according to myth, is Prometheus. His brother, Epimetheus created animals.
- Origins of the constellations; Orion, Andromeda
- Seasons; e.g., the story of Demeter and Persephone
- Animal characterizations; e.g., in honor of Argus, a faithful servant Hera kept alive his memory by giving his "one-hundred eyes" to the peacock, her favorite animal. The peacock is now known to be the vainest of all animals. Why? Dionysus punished pirates who kidnapped him by turning their ship into a mass of entangled grapevines. The pirates, overcome by fear, threw themselves into the ocean only to be turned into dolphins, the most nearly human of all animals.



Other famous myths describe heroes of the gods; e.g., Jason, Hercules, and Theseus. Have students read, to the class, from myths about these heroes.

- *What is a hero?*

List the heroic deeds of each of these mythical characters.

Some myths describe the anger of the gods. Many times man was punished for trying to imitate the gods. Read the myths:

- Pandora's Box (Her curiosity caused men to be jealous, greedy, vain, etc.)
- The Story of Icarus (who tried to fly to Mt. Olympus)
- Prometheus (who stole fire from the gods)

- *Rewrite one of the myths you have heard or read about and provide illustrations.*

Myths could be dramatized as they are read aloud by a narrator.

Students will enjoy designing costumes which represent the gods, or beasts.

A class mural depicting Mt. Olympus and the famous gods and goddesses could be drawn on a bulletin board.

Students might draw symbols which represent the powers of the gods. (Examples: Helios (sun), Selene (moon), Apollo (music - ♪♪ notes).

ACTIVITY...4...Explain that the olive tree was a gift from Athena to her favorite city. The gift brought food, oil, and wood to the city and it was named Athens in honor of her.

- *What did the olive wreath symbolize in the ancient Olympic games?* (victory, triumph)

One myth explains that Pelops was given a magic team of horses by the god Poseidon. For being victorious in a chariot race, he was made king of Elis. In honor of the gods, he invited heroes from Greece to participate in athletic games of honor. This myth inspired the ancient Greeks to initiate the games which are celebrated today.

- *What are they called?*

ACTIVITY...5...Help students create original myths to explain "scientific phenomena." Review the characteristics of a myth. Students could work in pairs, or small groups. Some suggested topics are:

- The origins of floods, volcanoes, earthquakes
- An eclipse of the sun
- The Bermuda Triangle
- The approaching Ice Age
- U.F.O.'s

Study word origins. Many words in the English language are derived from Greek myths. Relate word meanings to myth. Examples: nemesis (Nemesis), tantalize (Tantalus), narcissism (Narcissus), echo (Echo).

Find other English words derived from myths.

Make a list of English words which come from the Greek language.

- *Are there any words related in any way to, or used to describe the Olympics which originated in the Greek language? Name them and explain.*

Some figures of speech are derived from myth.

- *Do some detective work to find the true meaning of: The Midas touch, a Pandora's Box, The Face That Launched a Thousand Ships (Helen of Troy), and others.*

Read myths from other countries. Compare them to Greek myths.

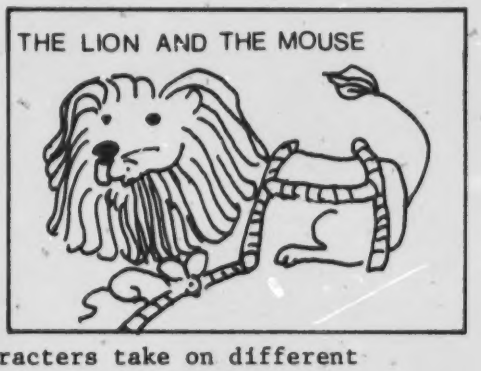
The Roman Empire worshipped the same gods, but gave them Roman names.

Do research to find the Roman counterpart for each of the major Greek gods. (See APPENDIX, page 126.)

BACKGROUND...Literature, by means of characterization, deals with human behavior and, as a result, valuable moral lessons may be learned through it. Fables, for example, are representative of human experience and reinforce accepted standards of behavior. For those who believe that athletics contribute to a way of being, it may also provide opportunities to develop character and to teach lessons about desirable human behavior.

ACTIVITY...6...Explain to the class that a famous Greek storyteller, named Aesop, entertained people by relating fables. You may wish to describe briefly the world, and life in Greece, during that time in history as background. List these characteristics of a fable:

- A fable has animal characters.
- A fable teaches a moral, or a lesson.
- In a fable, good wins over evil.



Read two or three of Aesop's Fables to the class. Discuss each fable to determine its moral. Then, have the students apply the moral to their own experiences. Point out that the animal characters take on different aspects of human nature (greed, wisdom, vanity, courage, patience, generosity).

With the class, arrive at some conclusions about the format of a fable.

- One or two characters who display or represent certain characteristics of human behavior
- A brief episode or activity designed to culminate in a lesson or moral
- A statement of the lesson or moral

ACTIVITY...7...Consider with the students the following lessons which might be said to be related to the spirit of the Olympics:

- It's not whether you win or lose, but how you play the game.
- If at first you don't succeed, try, try again.

Ask the class to suggest some other morals or lessons inherent in Olympic competition and select one to serve as the basis for an "Olympic Fable" to be developed together.

Write your own Olympic Fable based upon something that can be learned from the Olympic games.

- *How does the fable relate to the success of an Olympic athlete?*

- *How does the lesson pertain to life in general?*

Act out your fable before the class until the class guesses the moral.

Illustrate the fables and arrange them in a class anthology.

Read fables from other countries to the students and relate them to classwork in geography and history.

In concluding this unit, discuss with the class the differences and similarities of myths and fables.

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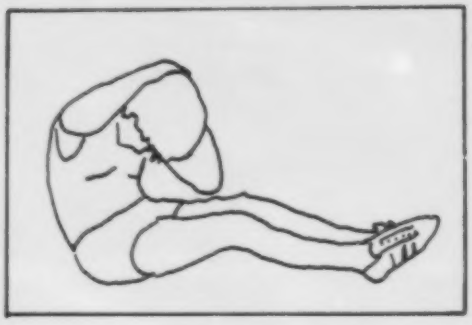
7-9 WHAT SHAPE ARE YOU IN?

OBJECTIVES...to identify and to explain the functions of those structures of the human body that are directly essential to the successful performance of an athlete...to demonstrate the inter-relationships among these structures which make possible the activities of the human machine under normal and stressful conditions...to compare the physical abilities and potentials of male and female athletes...to ascertain student attitudes toward athletics and physical fitness...to investigate the four major components of physical fitness...

ACTIVITY...*1*...Explain to the students that success in sports depends on the right combination of physical, mental, and social characteristics and attributes. However, the single most important of these is the anatomical equipment one is born with and how it functions.

Ask volunteers to write on the chalkboard the physical or structural essentials a "Mr. or Ms. Olympic" must possess in order to train and to compete successfully. "Physical essential" means those human body systems and their specific organs that directly determine an athlete's performance.



TEACHER'S ANATOMY BANK

System	Specific Structures
Muscular	voluntary muscles
Skeletal	skull, long bones, joints, tendons
Respiratory	lungs and diaphragm
Circulatory	heart, blood vessels, and blood
Skin	sweat glands, oil glands
Excretory	kidneys
Endocrine (ductless glands)	adrenals, thyroid
Nervous	sense organs, brain, spinal cord, nerves

Assist the students with the above information. When they are unable to progress any further on their own, provide them with a handout outlining the systems that are essential for athletic performance. Also list the specific organs that are associated with each system and that directly influence the athlete.

Supported by a chart transparency or slide of the internal human body, identify organ structures. Suggest that every student locate these structures in his/her own body.

TEACHER'S PHYSIOLOGY BANK

VOLUNTARY MUSCLE...message sent over nerve pathway stimulates muscle... adenosive triphosphate (ATP) chemical energy source triggers muscle contraction...muscle contracts (shortens) to move bones of sketeton... muscle then relaxes (lengthens)...oxygen combines with glucose (sugar) to make more ATP for muscle contraction. Carbon dioxide and water given off as waste products, exhaled...lactic acid builds up in tired muscle causing fatigue...oxygen and rest, if necessary, return muscle contraction to normal..."second wind" is the highly efficient use of ATP by the muscles of the body...

LONG BONES...serve as various types of levers and provide a "mechanical advantage" for the athlete...

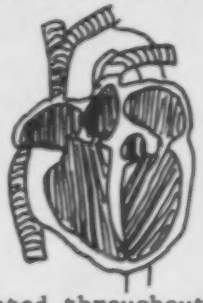
SKULL...this "heavy" complex of bones is the center of mass (gravity) of the body. Generally, the rest of the body moves about the skull...

JOINTS, LIGAMENTS, AND TENDONS...joints provide for movement between bones (articulation). Ligaments join one bone to another. Tendons connect bones to muscles...

LUNGS...infuse valuable oxygen from the air into the blood and remove wastes, carbon dioxide, and water from the blood...

DIAPHRAGM...involuntary muscle that causes breathing...

HEART...involuntary muscle that pumps blood to the muscles and entire body, thereby maintaining a circulation of materials essential for athletic activity. Heart determines blood pressure...



BLOOD VESSELS...tubes through which the blood is circulated throughout the body and comprising arteries, veins, and capillaries...

BLOOD...complex liquid consisting of cells and many materials essential for all life activities. Hemoglobin concentrated in red blood cells is directly responsible for carrying oxygen from lungs to muscles and the rest of the body. The plasma of the blood transports the carbon dioxide and water wastes to the lungs for removal...

KIDNEYS...filter the athlete's blood to remove excess water and salts and urea, a normal toxic waste of the body; otherwise, these materials would drastically impede physical activity. The bladder temporarily stores these wastes for the performing athlete...

SWEAT GLANDS, OIL GLANDS...sweat glands are essential for maintaining the temperature of the blood at 98.6°F and also for removing waste water and salts. The skin surface serves to absorb minor injuries and to help prevent infection...

THYROID GLAND...delivers thyroxin hormone into the blood to control the rate at which the entire body is functioning. This "athletic engine" can idle, increase speed, or slow down (metabolism)...

ADRENAL GLANDS...transfer adrenalin hormone into the blood to the muscles when there is a demand for unusual strength or stamina...increase heart beat and amount of glucose in the blood...

SENSE ORGANS...eyes, ears, and sensory structures for feeling, pressure, and pain essential to the performance of the athlete...

BRAIN...controls entire body physically, mentally, and emotionally. All voluntary and involuntary commands to muscles emanate from the cerebrum and medulla respectively. The cerebellum governs muscle tone and coordination and maintains balance, all critically important to the athlete...

SPINAL CORD AND NERVES...pathways for messages to and from the brain which link directly to muscles. The automatic reflex of the spinal cord allows the athlete to run, for example, without thinking about the leg and arm muscles...

If you feel the students now possess a reasonable understanding of the general functioning of the performing athlete, organize the class into six groups and assign two of the questions below to each group. After a sufficient amount of time, direct each group to present their responses to the class. Library resource and supportive text material may be necessary.

- *What is an oxygen "debt?" Why do athletes sometimes take oxygen during a contest?*

- *If carbon dioxide increases in the blood as one exercises, what happens to the breathing rate? What does oxygen do to the breathing rate?*

- *What are the three types of sketetal levers available in the human skeleton? Identify the effort, resistance, and fulcrum parts for each lever.*

- *Explain the meaning of a sprain and a muscle spasm, strain, pull, and tear. How is a muscle, tendon, or ligament affected?*

- *What specifically do the arteries, veins, and capillaries do for the athlete?*

- *How does someone take his/her pulse? What is the connection between the pulse and the heart beat?*

- *Which is usually advantageous for long distance runners, high or low blood pressure? Why?*

- *When athletes perform at high altitudes, such as Mexico City in 1968, where the amount of oxygen in the air is less than normal, how is their activity restricted? What chemical in the red blood cells is involved? Can the athlete adjust to this altitude with regard to this lack of oxygen?*

- *If athletes could not remove the wastes carbon dioxide, excess water, and salts and urea from their bodies fast enough, how would their activities be affected?*

- *If an individual performs during cold weather conditions, he/she can suffer hypothermia. What is this condition and how can it be corrected?*

- *Should a performing athlete drink water? drink fluids containing sugar? fluids containing salt? eat solid food? Explain why in each case.*

- *Should adrenalin be taken by an athlete to enhance strength and speed? Why or why not?*

ACTIVITY...2...Ask the class to consider again "Mr. and Ms. Olympic."

- *How and why are they different?* **(Note size and strength.)**

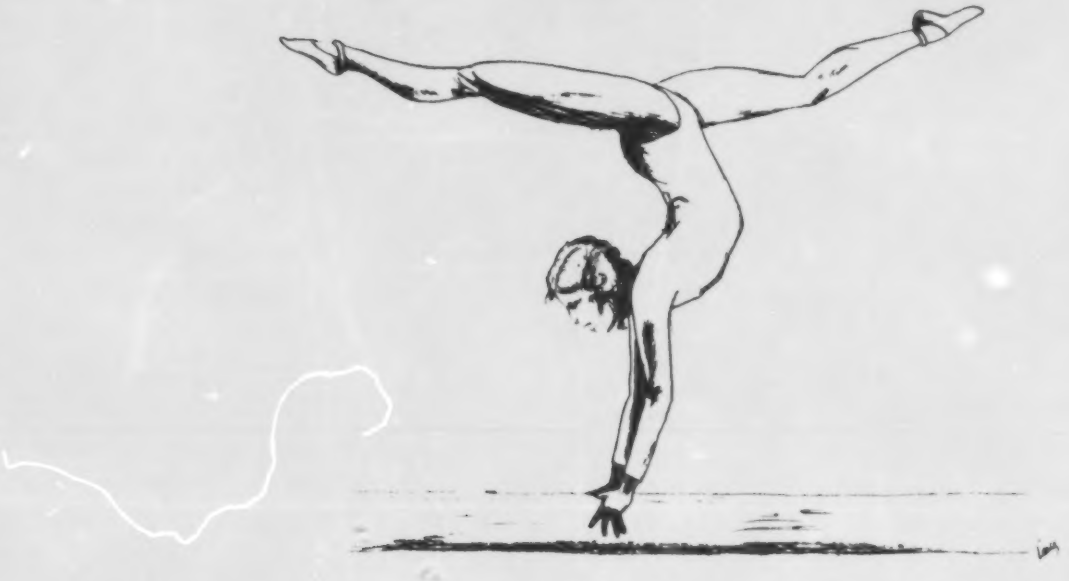
Discuss whether or not female athletes can compete against males and win.

- *Does being male or female have much to do with being a good athlete?*

Cite the following points regarding the abilities and potential of male and female athletes. Challenge the students to provide the supportive reason or evidence for each true statement.

The Challenge	The Evidence
1...Pre-teen girls (10-12) are often better athletes than boys of the same age.	Since the female body matures faster than that of the male, pre-teen girls are physically larger and will have reached their adult height by age 13.

Further, adult fat has not yet been deposited on the pre-teen female body. Gymansts Olga Korbut and Nadia Comaneci were good examples.



2...Men are often better athletes than women.	The chemical messengers (hormones, the androgens, and estrogens) have extensive influence on physical development.

These hormones are especially effective throughout adolescence and they affect girls differently than boys at an earlier age; i.e., 12 (average) for girls as compared to 14 (average) for boys.

Estrogens direct female growth to be completed by approximately age 13 and thereafter cause the disposition of fat. On the other hand, androgens (such as testosterone) steadily direct the growth of the male into his early 20's. The result: he grows taller and his chest and shoulders grow larger. In most sports, this natural addition of fat is a disadvantage for the woman; whereas the extended growth resulting in a larger, stronger, faster, and more powerful body is a clear advantage for the man.

The Challenge	The Evidence
3...How is fat a disadvantage to the woman athlete?	About 7 to 12% of the well-conditioned woman athlete is fat as compared to 2 to 6% for the well-conditioned man.

The female has, in proportion, more weight to carry around. Further, fat cells, like other cells, consume oxygen which otherwise might be available for muscle contraction.

4...Can fat be an advantage to the woman athlete?	Definitely. In sports events requiring considerable endurance such as long distance swimming and

running, an energy reserve is an obvious advantage.

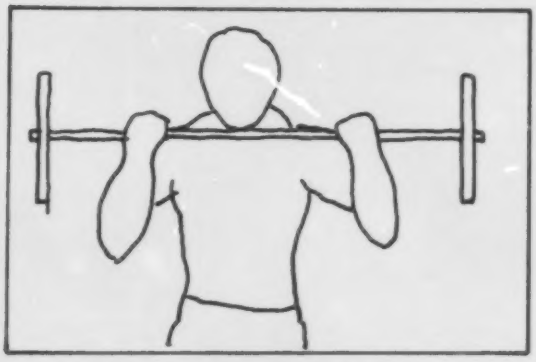
5...Does the woman possess any other physical characteristics which influence her performance in sports?	Narrow shoulders decrease upper body strength but serve as an advantage for cutting through water during swimming events.

Wider pelvic bones can sometimes result in leg injury to a runner.

Since sweat glands perform more efficiently, her blood can be cooled more rapidly. She also has the ability to tolerate heat.

The ovaries of the reproductive system are internally protected from injury.

6...What are those physical characteristics which influence the performance of the man during athletic competition?	The broader, stronger shoulders are a clear advantage to the man in sports involving throwing, hitting, and contact. Their mass could be a disadvantage in some events.



More muscular upper arms are advantageous in sports involving throwing, hitting, and arm leverage.

Heart and lungs (cardiovascular potential) are 10% larger on the average.

Pelvic bones (hips) are narrower and generally better adapted for running.

The legs are longer and stronger, enabling him to run faster.

The testicles of the reproductive system are located outside the body proper and susceptible to injury.

7...If the top male athlete and the top female athlete compete, who wins?	Because he has a biological advantage, the man would most likely win. Although this is true in most sports, it is not the case for certain sports.

Now that you have conducted a thorough, hopefully unbiased, discussion comparing the physical abilities and potentials of male and female athletes, your class should be aware of the following generalizations:

- Many women are better athletes than many men and can outperform them.
- A well-conditioned woman can beat all but the most well-conditioned men.
- Keeping in top physical condition may be the real key to being a fine athlete.
- Sports are not for men or women; they are for people.

*ACTIVITY...3...*Emphasize with the students that a person having a physically structured body does not automatically become a well-trained athlete. There are many people who have no interest whatsoever in sports. Among many other factors, mental attitude is essential to success in athletics. Conduct the survey below with your class to establish these ideas.

Read each of the following items and check the appropriate blank. Try not to use the "undecided" block unless absolutely necessary.

- What is your attitude toward physical fitness and sports?

	agree	undecided	disagree
1...Physical fitness is okay for those who like sports, but not for me.	___	___	___
2...Physical exercise is as dangerous to health as it is valuable.	___	___	___
3...I enjoy playing sports just to get away from it all.	___	___	___
4...I like team sports better than individual sports.	___	___	___
5...Physical activities are one way to make me relax.	___	___	___
6...One of the main values of sports is that it fills in leisure time.	___	___	___
7...I would take part in physical activities only if forced to do so.	___	___	___
8...The amount of time some people spend exercising could be spent more wisely in other ways.	___	___	___

	agree	undecided	disagree
9...Business and industry would be wise to substitute exercise breaks for the coffee breaks their employees now take.	___	___	___
10...Competition in sports can destroy good friendships.	___	___	___
11...Most jobs provide all the exercise a person needs.	___	___	___
12...Everyone should be skilled in several sports which can be used later in life.	___	___	___
13...Dancing is a waste of time.	___	___	___
14...Good health and physical fitness are essential for all of life's activities.	___	___	___
15...Everyone should stay physically fit because it is so important to one's total health.	___	___	___
16...People who stay physically fit do not get sick as often.	___	___	___
17...Olympic athletes must be in better shape than the average person.	___	___	___
18...Olympic performers must train special muscle groups based on the type of sport in which they compete.	___	___	___
19...Olympic athletes develop their physical skills but they neglect the other aspects.	___	___	___
20...I believe that someday I could become an Olympic athlete.	___	___	___

After compiling the results of this survey, share them with the class on the chalkboard or overhead projector. Pose these questions:

- *What are those survey items that a large number of students strongly "agreed" with? Discuss these attitudinal responses.*
- *What are those items that a large number of students strongly "disagreed" with? Discuss these attitudinal responses.*

- *Why were some items cited as "undecided" (if any)?*

- *What are some of the mental attitudes an Olympic athlete must possess to train for the Games? to be a winner? to be a good loser?*

You and your students may wish to offer this attitudinal survey to other classes in your school in order to compare their reactions with your class'. Also, a survey of adults in the school or community might prove interesting and worthwhile.

*ACTIVITY...4...*This activity is designed to involve students in the skills of research, organization, writing, and oral reporting. Divide the class into four groups to research the four major components of physical fitness: (1) cardiovascular endurance, (2) muscle strength and endurance, (3) flexibility, and (4) body composition. Each group should prepare a written report which includes the following:

- A definition of the component of physical fitness being researched
- The related physiological terms and concepts
- The relationship the component has to everyday life

Each group's report should be presented to the entire class by a spokesman appointed by the group. Collect all the reports for review with regard to content, organization, grammar, and neatness. (See APPENDIX, page 128 , for information on these components of physical fitness.)

At the conclusion of this activity, present the following points to the students on a handout. Ask them to discuss physical fitness with their parents.

What Physical Fitness Can Do For You

- Routine activity uses only a small part of the physical reserve.
- Skill and agility make movement easy.
- Poise and grace are byproducts of, and factors in, good appearance and social ease.
- Good posture and muscle tone can help avoid future back problems.
- Physical activity aids in weight control.
- Diseases of the heart and blood vessels, diabetes, and arthritis strike the obese more often and more seriously than those of normal weight.
- Active people have fewer heart attacks and better recovery rates than the inactive.
- Exercise can help relieve tension and high blood pressure.
- Individual and team sports are more available and more enjoyable to a fit person. They are also an excellent way to use leisure time.

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ANCIENT & MODERN

7-9

OBJECTIVES...to enhance development of reading, writing, and oral expression skills...to relate academic learning to an understanding of values, discipline, excellence, and fair play insofar as they exist as ideals in sport...to become familiar with symbols used in the Olympics...to demonstrate the value of knowledge of the ancient and recent past...to relate ancient Greek culture to the origin and evolution of the Olympic Games...

NOTE...The following is a suggested outline of activities which might be used for approximately two weeks. The unit is designed to encourage students to investigate the relationship between ancient Greek culture and the Olympic Games, both Ancient and Modern.

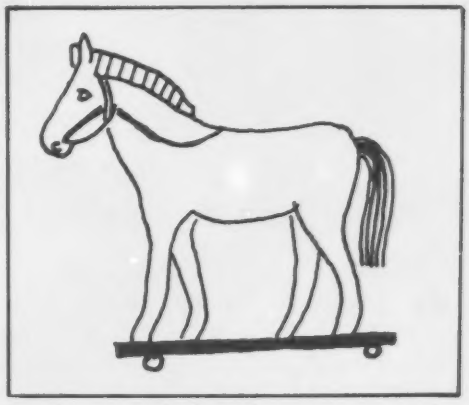
ACTIVITY...1...Olympia and the Greeks...the Greek Pantheon... the Ideals of Ancient Greece...

> *Using an outline map, identify Greece and such important Greek sites as Athens, Sparta, Mt. Olympus, Delphi, Mt. Parnassus, etc.*

Assign readings in Greek mythology, history, and biography. Discussion:

> - *Separate Greek history from Greek mythology.*

Refer students to a list of the gods and goddesses of Greek mythology. Have them discover and read stories of such heroes as Perseus, Odysseus, Achilles, Persephone, Daedalus, Theseus and the Minotaur, Atalanta and the Golden Apples, Pandora, and the Trojan Horse.



ACTIVITY...2...The Greek Ideal of Order...lecture and discussion on the Greek conception of the world as cosmos, an orderly, harmonious whole. Contrast this with a world where the gods interfere capriciously in human lives.

Allegorical interpretations of the Homeric gods: lecture and discussion based on assigned reading.

Discuss the Greek concept of the sound mind in a sound body; the concept of the whole man.

ACTIVITY...3...The Olympic Games: Ancient and Modern...assign research topics to students in preparation for a discussion of the Games then and now.

- *When did the Games begin? (Ancient and Modern)*
- *What were the first events in ancient Greece?*
- *What are their counterparts now?*
- *Describe how the Modern Games were begun and how they have developed.*

Bring in news articles and clippings about recent and forthcoming Olympiads.

ACTIVITY...4...Olympic Symbolism...initiate the students' thinking about symbols by conducting a discussion about common symbols and their referents. Begin by asking why students each day pledge allegiance to a piece of red, white, and blue cloth; or why, when that same colored cloth passes in a parade, men remove their hats and military personnel salute. The concept of symbolism will undoubtedly evolve.

Have students make a list of symbols and referents that are familiar to, and commonly accepted by, everyone. Examples might be:

- Wedding and engagement ring
- Skull and crossbones
- Flags
- Mortarboard (graduation cap)
- Traffic lights and signs
- Mathematical signs

When discussing these symbols, two important points should evolve:

- Symbols may represent something concrete (example: skull and crossbones = poison); or symbols may represent something abstract (example: flag = freedom, loyalty). A definition of the terms "concrete" and "abstract" should be taught at this point.

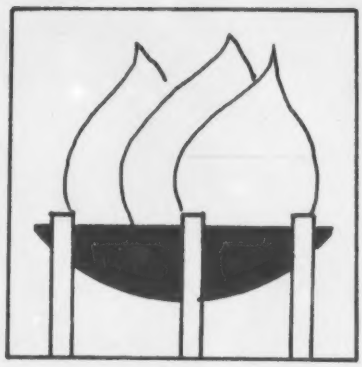
- Most symbols and referents are recognized and understood by all, and this is necessary. For example, it is necessary that all drivers understand and accept that at a traffic light, red means "stop" and green means "go."

Lead students to understand that words themselves are symbols.

Using a driver's manual or by having students make observations and notes, research the symbols used for road signs. Trace the transition from the road signs used a few years ago to the more modern, international symbols and discuss the reasons for this change.

Discuss the significance of body movements as symbols for feelings. Have individual students use body gestures to portray a particular mood and have the class identify that mood. (Example: Eyes and head lowered could indicate dejection.)

Assign class reports on Olympic signs and symbols: the Flag, the Motto, the Ideal. Discuss Olympic ceremonials (the torch; the wreath; awards; opening and closing) and their purpose. (See pages 81-82.)



Assign a reading of the Olympic Oath. Discuss the definition of "oath."

Discuss the spirit of fair competition and the pursuit of individual excellence. Have the students write personal, class, and team mottoes and oaths. Discuss cheating versus fair play.

ACTIVITY...5...Myth, Drama, Poetry, and the Olympic Games...lecture and discussion on the plays and poems performed in conjunction with the games. Assign the reading of one of the plays, or poems, or general reading in the literature of sport.

Assign the reading of that section of Book 23 of Homer's The Iliad devoted to the funeral games for Achilles' friend Patroclus. Discuss.

Consider, with the students, that favorite classical form for dignified, exalted, lyrical praise, the ODE, which was often used to sing the exploits of Olympic or other athletes.

The classical Ode seems to have been choral (that is, sung in groups which were divided so different parts of the chorus sang, at different times, in response to one another). During the recital of the ode, the chorus moved in one direction for the first stanza, in another direction for the second stanza, and stood in place for the third. This movement signified the emotional lift and fall of the poem. Now the term ode means any serious, elevated poem of praise written in almost any way the writer desires and with almost any structure, as long as the tone is dignified.

There are numerous variations upon the ode form. Pindar and Horace are the two great classical authorities on the form; Keats' "Ode to a Grecian Urn," from the 19th century, and Allen Tate's "Ode to the Confederate Dead," from the 20th, are examples of the modern form of the poem.

Refer to Pindar's Odes, translated by Richard Lattimore. Pindar wrote 14 classic odes to Olympic heroes. Use them to study the form and as class exercises in reciting or writing poetry.

Other readings for the students might include: The Bull from the Sea and The King Who Must Die, by Mary Renault; Jason, by Henry Treece; and The Golden Apples, by Eudora Welty.

ACTIVITY...6...Controversy in the Olympics...Discuss events in recent Olympiads which have tended to detract from or contradict the Olympic Ideal.

- *Are these events generally beyond the control of the Olympians themselves? Explain, citing specific events and their causes.*

- *How do professionalism and commercialism affect the Olympics? Investigate and discuss the cases of Jim Thorpe and Jean Claude Killy. Would you consider both to have been "professionals?" Explain. How does the definition of that term change with time and interpretation?*

Discuss: nationalism; terrorism; psychological training; drugs (See DRUGS AND THE OLYMPICS on page 98.); the effects of television.

Suggest that the class devise an "ideal" Olympics or create a plan for correcting the abuses in recent Olympics. Make these team projects as well as individual projects.

Discuss the role of sport and its human values: fitness, discipline, competition, persistence, comradeship, team spirit, international understanding, and excellence. Relate these to readings in literature and mythology by reports, discussion, and lecture.

Read biographical anecdotes of excellence and great Olympic feats. (See Benagh, page 133.) Discuss values and rewards.

Discuss competition and its meaning. Consider the nature of human striving.

- *Are records meant to be broken?* (Citius, Altius, Fortius) *Explain.*

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Sidney, Sir Philip. "In Martial Sports."

NOTE...This unit is a collection, a potpourri*, of briefly stated activities which are related to other social studies and language arts units in this publication. Their objectives are implicit and they may be selected to enhance other Olympism activity in the classroom. These activities are written in the form of *instructions to the students.*

...1...Prepare an issue of a newspaper which reports on one of the ancient or modern Olympiads as if it were a current event. Be creative in designing the format, including masthead, illustrations, interviews, advertising, etc.

...2...Collect pictures of Olympic sporting events and add your own captions, both serious and comic.

...3...Write an essay which captures the feeling of winning or losing.

...4...Conduct and record interviews with sports figures in the school or in the community. Refine your questions after the first interview, based upon the results, and then try another interview.

...5...Collect, and share with the class, poems dealing with Olympic themes...honesty...fair play...discipline...competition...international cooperation. Try to write a poem like this yourself.

...6...Study the sports pages and learn the vocabulary of sports writing. Apply this vocabulary in a description of some non-sport event in the school or classroom.

...7...Design an Olympic crossword puzzle using at least 20 words. Use the names of Olympic athletes, events, ancient terms, Olympic trivia, and the like.

...8...Devise a game to foster the Olympic ideals among younger children. See if you can design one suitable for parents and other adults.

...9...Prepare a quiz on Olympic themes (as in the crossword puzzle) and submit to the teacher to become part of a class test.

...10...Create a scenario for an Olympiad for creatures from another planet. Begin by assuming a specific, non-human

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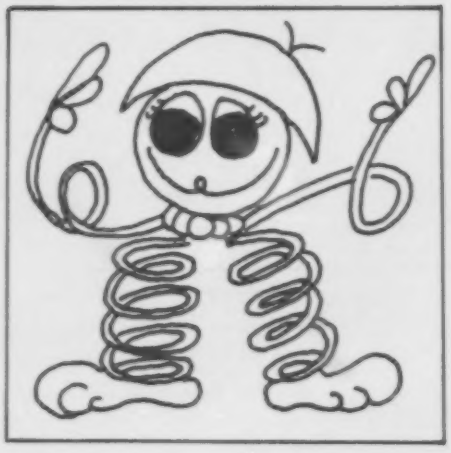
* (pō poo-rē')

physical makeup for your creatures and then design events which are suitable for these characteristics. Let your imagination soar!



BACKGROUND...Through the years, words have influenced, even directed on many occasions, the actual course of history. Among society's most potent verbal inventions have been the catch phrase, the pithy saying, the motto, and, especially, the closely related slogan. "Remember Pearl Harbor" and "We Shall Overcome" each had the emotional impact to help mobilize a large number of people for a common cause. The advertising industry has long realized the potential of slogans to promote their products. Youngsters in our schools have learned catch phrases like, "Plop, Plop, Fizz, Fizz" and "I'd Rather Fight Than Switch" more quickly than important terms or phrases in their school books. We have come a long way with sloganeering since the Scottish highlanders and Irish clansmen screamed the Gaelic word, *sluagh-gairm*, their battle cry and the beginning of the word, "slogan," in our English language.

...1...Using the overhead projector or chalkboard, present to the class examples of slogans, mottoes, or catch phrases which are associated with games, sports, and athletics. Show one of these at a time and direct the students each time to analyze and thereby determine its purpose and meaning as follows:

- *What does the statement ask or tell you to do?*
- *Whom is the statement speaking to?*
- *Does the statement make you want to do something (to act)?*
- *Does the statement make you think?*
- *Is the statement effective (good) or ineffective (bad)?*

Winning and Losing

Don't be second best.
May the best man/woman win.
Someone has to lose.

What some people enjoy most about table tennis is stepping on the ball.

Success is only a matter of luck.
Ask any person who has failed.

Olympic Games and Olympism

The joy of effort. (an Olympic medal)

Sport is a way of being.

Olympic gold.

The gods love the games.

Swifter, Higher, Stronger.

Nothing succeeds like success. Nothing fails like failure.

The thrill of victory; the agony of defeat.

Success comes in "cans," failure in "can'ts."

If you can't win, make the fellow ahead of you break the record.

The only drawback in being a good sport is that you have to lose to prove it.

Success goes to your head, failure to your heart.

The most important thing in the Olympic Games is not to win but to take part.

The most important thing in life is not the triumph but the struggle.

The essential thing is not to have conquered but to have fought well.

Amateur sport is for the participants, while professional sport, so-called, is for the spectators.

The games are ended, long live the games.

In this way people may ignite the team spirit of all mankind.

Explain to the students the criteria necessary for the development of a good slogan. Successful slogans have generally been known to:

- Be brief
- Have rhythm
- Rhyme
- Make you think
- Make you act

Review those slogans and related sayings cited as effective or good in ...1... and apply the five criteria stated above to each of these.

Rate each on a scale of one to five, with five indicating that all the criteria are represented in the statement.

- *How many of the slogans, mottoes, and catch phrases can pass the "5-point test?"*

...2...Challenge the students with the question: *Do you think you can make a good slogan?*

Organize the class into groups of two and then direct each pair of students to develop a slogan by relying on the five criteria given above. The slogan should concern the Olympic games in 1980 and 1984, Olympism, or athletics in general.

After all the pairs have had sufficient time to prepare, have each try out its slogans, one at a time, before the entire class. You may then wish to rate and/or grade each statement and display the outstanding ones on the classroom bulletin board.

Develop a slogan for each of the school district's athletic teams.

Research the literature for additional slogans, mottoes, and catch phrases concerning athletics.

Some additional ideas for you to consider for use with the class follow.

...1...Hands-on activities...scrapbooks...flag designs...Olympic word games...mini-Olympics in spelling (See Olympic Spelling List in the APPENDIX on page 129.) or grammar.

...2...Assign reports on the countries which participate in the Olympics. Have students make or present stamp or coin collections which identify these countries...make or present flags for these nations...report on costumes, habitations, customs, or foods of other lands.

...3...Have students collect words related to the Olympics that have been borrowed into English from Greek and discuss their meaning. For example:

- athlete - from *athlon*, prize; *athlein*, to contend for a prize; *athletes*, ones who...
- cycle - from the Latin *cyclus;* from *kyklos*, circle or wheel
- gymnast - from *gymnos*, naked; *gymnazein*, to exercise naked; *gymnastes*, trainer
- stadium - from *stadion*

...4...Instruct each student to learn to say "hello" and count from one to five in a language other than his/her own. Is it feasible to discover approximately 25 languages? Substantial effort will probably be required after the first dozen or so.

...5...Assist the class in staging part of a Greek play.

...6...Ask students to collaborate in an original play which could be staged simultaneously with the Games.

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OLYMPIC CLOSE-UP

7-9

OBJECTIVES...to provide students with background information about the Olympic movement; the events, the athletes, and the values inherent in Olympic participation...to explain the eligibility requirements for Olympians...

BACKGROUND...The concepts and philosophy pertinent to the Olympic Games, which originated in ancient religious festivals and physical education classes in Greece before the birth of Christ, can be nurtured in the school physical education setting today. The following unit can be of assistance to the instructor who is willing to integrate the spirit of Olympism into the classroom and gymnasium.

ACTIVITY...1...Discuss with the class why <u>sport</u> is an important, and growing, social force in our culture.

- *What evidence do you see of the increasing role sport plays in our lives?* (President's Council on Physical Fitness; television coverage; interscholastic sports)

- *List the opportunities we have to become actively involved in sports in our community.*

- *Chart the levels of competitive sport beginning with local, club sports, through scholastic levels, and on to the pinnacle of sport, the Olympics.*

Bring a television guide to class and calculate, with the students, the hours of coverage given to sport in a week.

- *Discuss the advantages and disadvantages of this extensive coverage.* (promote sports vs. spectate rather than participate)

- *How many hours a week do you spend in sports <u>participation</u>? How many hours do you spend watching sports on television or in person?*

Chart the names of sports you play and watch in two columns, matching the ones for which you do both.

WATCH	PLAY
racquetball	
bowling	bowling
golf	
lacrosse	
baseball	baseball
football	football
basketball	basketball
hockey	
track and field	
	skiing

*ACTIVITY...2...*Provide the students with the information below which describes the Olympic movement and aspects of the Games themselves. Discuss the issues which follow.

- The aims of the Olympic movement are...to promote the development of those physical and moral qualities which are the basis of sport...to educate young people through sport in a spirit of better understanding between each other and of friendship, thereby helping to build a better and more peaceful world...to spread the Olympic principles throughout the world thereby creating international goodwill...to bring together the athletes of the world in a great quadrennial festival of spirit...

- The Olympic Games highlight an Olympiad or period of four successive years. The first Olympiad of modern times was celebrated in Athens in 1896. Subsequent Olympiads and Games have been numbered consecutively from that year, even though it has been impossible to hold the Games in every quadrennial.

- The Olympic Games take place every four years. They unite Olympic competitors of all nations in fair and equal competition. No discrimination is allowed against any country or person on grounds of race, religion, or politics.

- The International Olympic Committee (IOC) governs the Olympic movement and owns the rights to the Olympic Games and the Winter Olympic Games. The honor of holding the Games is entrusted to a city and not to a country or area. The choice of a city for the celebration of an Olympiad rests solely with the IOC. (The structure and function of this committee as well as the national committees are described in the APPENDIX on page 130.)

- A separate cycle of Olympic Winter Games is held, comprising competitions in winter sports. They are held in the same calendar year as the Olympic Games. The first Winter Games were held in 1924 during the VIIIth Olympiad. Starting from this date they have been numbered consecutively. The term Olympiad is not used in connection with the Winter Games.

- Only persons who are eligible within the definition laid down in the IOC Rules may take part in the Olympic Games and the Winter Games.

- The Games are contests between individuals and not between countries.

  - *Do the Games, as held recently, satisfy the fundamental principles described?*

  - *Has discrimination contrary to these principles ever characterized the Games? Cite specific instances.* (Berlin, 1936 - aryan supremacy; Montreal, 1976 - the Taiwan exclusion)

  - *Contrast the Modern Games with the Ancient Games as to continuity and longevity.* (The Ancient Games lasted, basically uninterrupted, for 1200 years. The Modern Games have continued, interrupted twice for world wars, for 80 years.)

- *What responsibilities does the host city assume when sponsoring an Olympic festival? Refer to the most recent: Tokyo, Mexico City, Munich, Montreal, Moscow, and Los Angeles. Do the Games cause financial hardships for these cities?*

- *What responsibilities do the citizens of the host city's country have?*

- *Are the Games truly contests between individuals or are they exhibitions of nationalism and political rivalry?*

Share with the class the basic symbolism of the Olympic Games.

OLYMPIC CREED

"The most important thing in the Olympic Games is not to win but to take part, just as the most important thing in life is not the triumph but the struggle. The essential thing is not to have conquered but to have fought well." *Pierre de Coubertin*

OLYMPIC OATH

We swear that we will take part in these Olympic Games in the true spirit of sportsmanship and that we will respect and abide by the rules which govern them, for the glory and the honor of our country.

OLYMPIC FLAG

The Olympic flag, which appeared in Olympic competition for the first time at Antwerp in 1920, has a white background with no border. In the center are placed five interlocked rings whose colors are blue, yellow, black, green, and red.

Each ring represents one of the five continents; and in every flag in the world there can be found at least one color of the colored rings.

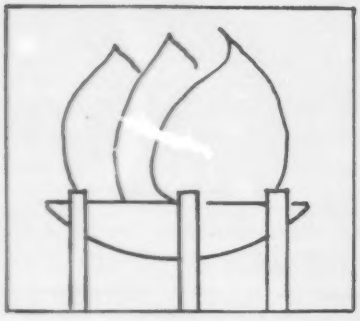
OLYMPIC SYMBOL

The Olympic symbol consists of the Olympic rings alone, whether in a single color or in different colors.

OLYMPIC MOTTO

"Citius, Altius, Fortius" expresses the aspirations of the Olympic movement. In English these Latin words mean "Swifter, Higher, Stronger."

OLYMPIC FLAME



The torch is carried hand-to-hand by relays of runners from the original site of the Olympic Games at Olympia to the stadium of the Games. As a symbol of peace among men, the flame represents the basic spiritual significance of this international classic.

ACTIVITY...3...Discuss with the class, from the information provided below, the eligibility requirements for Olympic participation and how one becomes an Olympic athlete.

Rules - to be eligible, a competitor must:

- Observe and abide by the Rules of the IOC and in addition the rules of his or her International Federation (IF), as approved by the IOC, even if the federation's rules are more strict than those of the IOC

- Not have received any financial rewards or material benefit in connection with his or her sports participation, except as permitted in the by-laws to this rule

By-laws - a competitor may:

- Be a physical education or sports teacher who gives elementary instruction

- Accept, during the period of preparation and actual competition which shall be limited by the rules of each IF, assistance, administered through his or her NOC or national federation for:

  - Costs of food and lodging
  - Cost of transport
  - Pocket money to cover incidental expenses
  - Expenses for insurance cover in respect of accidents, illness, personal property, and disability
  - Purchase of personal sports equipment and clothing
  - Cost of medical treatment, physiotherapy, and authorized coaches

  and, compensation, authorized by his or her NOC or national federation, in case of necessity, to cover financial loss resulting from his or her absence from work or basic occupation, on account of preparation for, or participation in the Olympic Games and international sports competitions. In no circumstances shall payment made under this provision exceed the sum which the competitor would have earned in his work in the same periods.

- Accept prizes won in competition within the limits of the rules established by the respective IF's

- Accept academic and technical scholarships

By-laws - a competitor may not:

- Be, or have ever been, a professional athlete in any sport or have entered into a contract to that end prior to the official closure of the Games

- Have allowed his person, name, picture, or sports performance to be used for advertising, except when his or her IF, NOC, or national federation enters into a contract for sponsorship or equipment. All payments must be made to the IF, NOC, or national federation concerned, and not to the athlete.

- Carry advertising material on his or per person or clothing in the Olympic Games, world or continental championships and Games under patronage of the IOC, other than trade marks on technical equipment or clothing as agreed by the IOC with the IF's

- Have acted as a professional coach or trainer in any sport

  - *What does the word "amateur" mean?* (Note that the word "amateur" is not used in this definition)

  - *Do we have amateur athletes in this country?*

  - *What are other countries' definitions of amateur?*

  - *With our system of amateurism in the United States, do you think we send our best athletes to the Olympic Games?*

  - *What would you think if professionals could compete in the Olympics?*

  - *Do spectators prefer to watch amateur athletes or professional athletes? Why?*

  - *What is life like for an amateur athlete (work, practice, social life, etc.)? for a professional athlete?*

Individuals may become Olympic athletes by the following means:

Individual Sports	Team Sports
• Local competition via club membership	• Local competition via club membership
• Regional competition based on championship at local level	• Regional competition based on local ranking
• National championships based on qualifying times or regional placement	• Selection for national teams made via special training camps, regional competition, etc.
• Olympic trials based on national performance and qualifying standards	• National competitors must compete internationally and place well in order to win a berth to the Olympic Games; via Pan American Games or World University Games
• No more than three individuals per event may be sent to the Olympic Games	

ACTIVITY...4...Discuss with the class the following information about how a sport can be added to the Olympic program.

Only sports widely practiced by men in at least forty countries and on three continents may be included in the program of the Olympic Games. "Widely practiced" means:

- National championships or cups permanently organized by the respective national sports federations
- International participation and the holding of regional and/or world championships in the respective sports

Only sports widely practiced by men in at least twenty-five countries and two continents may be included in the program of the Winter Games.

Only sports widely practiced by women in twenty-five countries and on two continents may be included in the program of the Olympic Games, and sports practiced in twenty countries and on two continents in the program of the Winter Games.

- *Discuss the most popular sports in the United States. How many of them are Olympic sports?*
- *Were football and baseball ever Olympic sports?*
- *What are the Olympic sports in which the United States has been most successful? unsuccessful?*
- *Name the sports (include Olympic) in which women compete internationally.*
- *Why is the longest running event for women in the Olympic Games the 1500 meters? Discuss the jogging and marathon phenomena currently in vogue.*
- *Why is the United States generally considered weak in the Winter Olympic sports?*

Research and list the names of the Olympic Games sports (21) and the Winter Games sports. Try to determine in which Olympiad each of the sports was introduced. Indicate the sports in which only men, and the sports in which men and women, participate. For example:

Olympic Games Program	Winter Games Program
Weightlifting - 1896 (M)	Figure skating - 1908 (M,W)
Wrestling - 1896 (M)	Ice hockey - 1920 (M)
Swimming/Diving - 1896 (M); 1912 (W)	Speed skating - 1924 (M,W)
etc.	etc.

What new sports and events are being considered for inclusion in the 1984 Games?

Investigate the nature of the athletic contests of the Ancient Olympic Games. Define them in terms of their counterparts in the Modern Games. (Background information is provided in the APPENDIX, page 131.)

FOOD FOR THOUGHT

7-9

OBJECTIVES...to review with students general information about nutrition, especially as it applies to athletics...to identify and to explain the basic concepts and vocabulary encountered in the study of nutrition...to employ, and thereby more completely understand, the concept of proper, healthful nutrition in terms of caloric intake and caloric output...

BACKGROUND...It is said that, "We are what we eat." While school children generally receive adequate information on proper eating habits and the nutritional value of food, it is unfortunate that many do not practice what they are taught. Consequently, some school-age children are subsceptible to serious health problems. A prime example is the inactive school child who has become overweight from eating too many "junk" foods; or more explicitly, from existing on an imbalanced diet. This problem invariably continues into adulthood.

Through participation in this unit, the students will encounter the basic concepts of nutrition, diet, caloric intake, and caloric output with a special emphasis on athletics. If a better impression can be made on more of our youth regarding dieting and food nutrition, they may become healthier adults.

ACTIVITY...1...Administer the pre-test on the following page to determine the students' understanding of nutrition and its importance to athletics and to healthful living in general. Using the answer key below, score the tests and inform the class of the results. The answers should not be revealed to the students until after the test has been re-administered as a post-test.

Key

1. eats food
2. +
3. +
4. +
5. carbohydrate
6. carbohydrates
7. +
8. mineral
9. cannot
10. is not
11. should
12. food
13. carbohydrates, sugars, and starches
14. +
15. empty
16. +
17. Calorie
18. +
19. +
20. +

Directions: *Respond to each question by writing a (+) in the space provided if the statement is true. If the statement is incorrect, replace the underlined word or words with the correct word(s) in the space provided.*

_____ 1. The meaning of the word diet is how an individual loses weight.

_____ 2. One of the essential six nutrients is water.

_____ 3. The nutrient carbohydrate is a valuable quick energy source for a competing athlete.

_____ 4. Carbohydrates consist of starches and sugars.

_____ 5. Fat, a nutrient that can be stored in the liver, is an essential energy source to sprinters on the track team.

_____ 6. Vitamins are a good source of quick energy.

_____ 7. Although difficult to digest, proteins are necessary for the building and repair of muscles.

_____ 8. Some athletes (incorrectly) believe that taking vitamin supplements of iodine, copper, phosphorus and calcium can improve their performance.

_____ 9. Protein can be stored in the body for future use.

_____ 10. A salt pill is usually helpful to an exhausted basketball player.

_____ 11. A competing athlete should not drink water.

_____ 12. Fruits and vegetables; cereals and grains; meat, fish and other high proteins; and milk and milk products are the four major nutrient groups from which a balanced diet can be derived.

_____ 13. A lot of vitamins are necessary for a successful athletic performance.

_____ 14. A person who exercises every day requires more Calories than one who does not.

_____ 15. A marathon runner should enter the competition on a(an) full stomach.

_____ 16. A liquid protein supplement beyond the normal protein intake is not an effective way for a wrestler to get quick energy and to build up muscles.

_____ 17. A gram is a unit for measuring the amount of energy in a food.

_____ 18. The average American consumes about 3000 Calories a day as compared to the training, competing athlete who needs over 4000 Calories, depending on the sport.

_____ 19. Because it is important for strong bones and properly contracting muscles, calcium should be included in the training gymnast's diet.

_____ 20. Everything that a training athlete needs in food can be supplied through proper nutrition.

*ACTIVITY...2...*After their pre-test, the students may be curious about their answers. This activity is designed to teach them the important concepts, terms, and facts about proper nutrition.

- Distribute the partially completed handout below. Ask the students to study its content. Advise them that they may work in pairs on this activity. After the students have had ample time to record their answers, assist them with the information on pages 87-89.

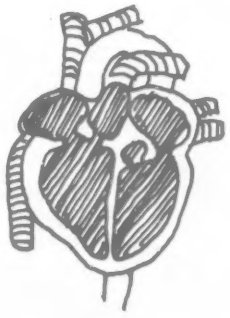
Six Nutrients	General Purpose	Storage	Caloric Value	Proper Amount in Diet
CHO (carbohydrates)	1	6	4 Calories per Gram	14
FAT	2	Located under skin, around organs and in muscles.	10	15
PRO (proteins)	Development and repair of all tissues including muscles.	7	11	16
VIT (vitamins)	3	None except A, D, and B_{12} in the liver.	12	17
MIN (minerals)	4	8	No energy value.	18
H_2O (water)	5	9	13	At least 2 liters per day; more during athletic activity.

Answers: Chart items 1-5:

(1) Provide quick energy for all tissues, especially muscles.

(2) Provide sustained energy for all tissues; a source of energy for endurance-type activities.

(3) Serve as coenzymes (work with enzymes) to control and maintain the many chemical reactions in the body.



(4) Regulate many activities in the body including heart beat, muscle

contraction, conduction of nerve messages, etc.

(5) Serves as the essential solvent for all tissues; a medium in which chemical reactions take place.

NOTE...Depending upon degree, a deficiency in any one of these six nutrients can result in serious consequences or even a life-threatening condition. In certain cases, an excess of a nutrient can also be harmful to life activities.

Answers: Chart items 6-9...

(6) Located in the liver and in muscles as glycogen, a starch that can be converted to sugar (glucose).

(7) Found in all tissues including muscles, which are high in protein content.

(8) Proper levels of minerals maintained in the blood. Calcium and phosphorus concentrated in bones and teeth.

(9) Ample storage throughout the body, especially in the blood.

Answers: Chart items 10-13...

(10) Nine Calories per gram; a high energy source.

(11) Four Calories per gram; the same as for a carbohydrate (sugar or starch). Protein is not used for energy unless the body is subjected to serious stress.

(12) No energy value.

(13) No energy value.

NOTE...A gram is a mass ("weight") amount of the food substance.

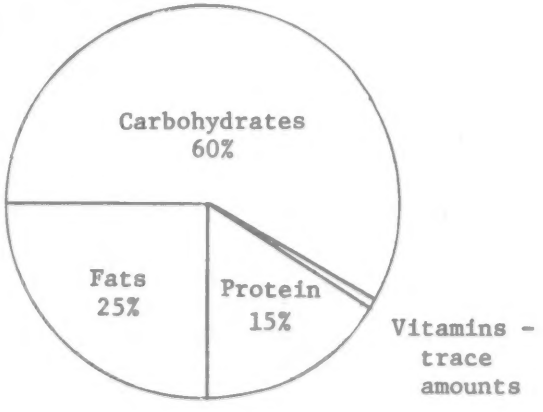
Answers: Chart items 14-18...

(14) 60% of the daily food intake.

(15) 25% of the daily food intake.

(16) 15% of the daily food intake.

(17) Vitamins: A, B, B_2, B_6, B_{12}, Niacin, C, D, E, K, Pantothenic acid, Folic acid, and Biotin are powerful substances required in trace amounts.



FOOD INTAKE

NOTE...Vitamins are measured in milligrams, micrograms, and "International Units."

Vitamins and minerals should be sufficient in a properly balanced diet. Massive dosages do not substantially improve the performance of an athlete.

In fact, large amounts of certain minerals and vitamins can be dangerous. Ingestion of salt pills (sodium chloride) can result in the thickening of the blood and possible clots. Any mineral in excess, iron, for example, could cause poisoning.

Excessive intake of vitamins A and D can lead to kidney and bone defects. Vitamin and mineral deficiency diseases are well known.

An extreme intake of water can reduce the mineral concentrations in the body fluids.

A protein intake in excess of the 15% recommended is wasteful and expensive since this nutrient cannot be stored in the body. Fat can be stored, but an excessive intake of fat can result in the so-called overweight condition with all of its hazards, especially to the circulatory system. Only for high-endurance athletic events would a more than normal intake of carbohydrates be beneficial to performance; otherwise, too much sugar can have a negative influence on the body, since sugar can be converted to fat, which in excess can be deleterious. Through a rebound effect, excess sugar intake increases the appetite.

- Develop an overhead project transparency from the one-day, four-food-group diet outline below. Present this to the class and ask these questions:

  - *How many Calories are available for each meal? each food group? the entire day?*

  - *What does "diet" actually mean?*

  - *Is this an example of a balanced diet? Explain.*

	Group 1... Fruits and Vegetables	Group 2... Cereals and Grains	Group 3... Meat and High Protein Food	Group 4... Milk and Milk Products
Breakfast	orange juice, 1 glass: 100 Cal.	cooked oatmeal & 1 tsp. sugar: 240 Cal; toast, 2 slices: 120 Cal.		milk, 8 oz.: 150 Cal.; butter: 1 tbs.: 50 Cal.
Lunch	apple: 75 Cal.; lettuce: 15 Cal.	break (sandwich): 240 Cal.		4 slices of cheese (sandwich): 150 Cal.; milk, 8 oz.: 150 Cal.
Dinner	lettuce and tomato: 75 Cal.; potato: 120 Cal., strawberries, 1 cup: 60 Cal.	corn-on-the-cob: 100 Cal.	salmon, 6 oz.: 300 Cal.; green beans: 75 Cal.	butter, 1 tbs.: 50 Cal.
Snack	banana: 130 Cal.		peanuts, 1/4 cup: 200 Cal.	

- Have the students consider the following information about daily required Caloric intake:

Girls (Ages)	Calories	Boys (Ages)	Calories
13-15	2600	13-15	3100
16-20	2400	16-20	3600

  - *Is the source of the Calories important? Why?*
  - *What factors affect an individual's intake of Calories?* (age, sex, exercise, health, and weight)
  - *Why do adults usually require a Calorie intake that is much less than that needed by teenagers?*
  - *In the four-food group diet provided* (above) *you calculated the total number of Calories available for one day. Using the daily Calorie requirement information you have been given, identify the sex and age of a person who might use this daily diet.*
  - *What is a Calorie really?* (A Calorie is the amount of heat energy needed to raise the temperature of one liter of water one degree on the Celsius scale. Note that the small calorie is used by physical scientists, not nutritionists.)

ACTIVITY...3...Ask the students if they now understand the aforementioned concepts, terms, and facts about nutrition. Indicate to them that each must learn how to compute his/her own weight in Kilograms. Direct them to do this as shown below and to record their answers to the nearest integer on Data Sheet 2 (page 93). There are 2.2 pounds in each kilogram. If we assume a person weighs 150 pounds, his/her kilogram weight can be determined by dividing 150 by 2.2.

$$\left(\frac{150}{2.2} = 68 \text{ Kilograms}\right)$$

- Provide the students with copies of Table 1: Caloric Values of Some Common Foods (page 94). (Any reasonably comprehensive Calorie table should be appropriate.) After they have studied its content, review with the class the organization of the table by citing representative foods in each category.

- Distribute to the class copies of Table 2: Calories Used Up For Each Kilogram of Body Weight For One Hour (page 96). Direct the students to examine this table carefully. Note that it includes everyday as well as athletic activities. It is important that the students understand the meaning and content of Table 2.

- Now provide each student with copies of Data Sheets 1 and 2. Include an extra copy for preparatory work. Ask them to fill in the heading (name, age, and sex) of Data Sheet 1: Caloric Intake (p. 92). The "proper Caloric intake" can be obtained from the information for girls and boys above. The "actual Caloric intake" will be determined as follows:
  - Using Table 1, require each student to record all the food ingested during a two day period. Indicate amounts (estimate if in doubt)

and write in the number of Calories consumed. The actual Caloric intake will be the average of both days. Have the students compare their proper and actual Caloric intakes and to cite reasons for any discrepancies.

- Next, direct them to fill in the heading (name/weight in pounds and kilograms previously determined) of Data Sheet 2: Caloric Output. Using Table 2, require each student to record all his/her activities including: sleeping, sitting at rest; "existing," i.e., basal metabolism; and, the length of time expended for each activity. Convert fractions of hours to decimals. For example: 3 hours and 45 minutes would be 3.75 hours. Use the following example to facilitate the students' use of Data Sheet 2:

  - *How many Calories does a 150-pound man expend when he completes a marathon in 2 1/4 hours?*

    Solution: Use the formula...

    Calories Used Up in Event = Number of Calories needed for one kilogram of body weight for one hour x Total number of kilograms of body weight x Total number of hours

    = 10.8 Cal/kg/hr (See chart) x $\frac{150 \text{ lb}}{2.2 \text{ lb}}$ (1 kg = 2.2 lb) x 2.25 hr. (Convert fraction to decimal.)

    = 10.8 x 68 x 2.25

    = 1652 Calories
    (Round off answer to nearest whole number.)

- Some hints regarding Data Sheet 2:

  - Combine the time expended on activities that repeat throughout the day, such as sitting while studying.

  - Every student has a basal metabolism, a process that persists through every hour and every day of one's life. Basal metabolism is the energy (measured in Calories) needed to support the life functions (heartbeat, breathing, etc.) at a basic, non-active level.

  - Sleeping requires energy over and above the basal metabolism.

  - Each day's activities should add up to at least 24 hours. You will frequently be doing two or more things at one time.

  - Use the various exercise categories when an activity does not clearly match one on the table.

  - For the purpose of infusing special interest into this activity, suggest to the students that they pretend to be performing athletes for one hour. A number of sports, several Olympic events, have been included on this sheet.

Unit is concluded on page 97.

DATA SHEET 1: CALORIC INTAKE

Student's Name _____ Proper Caloric Intake _____

Age _____ Actual Caloric Intake $\left(\frac{\text{Day 1} + \text{Day 2}}{2}\right)$

Sex _____

Day 1

Food	Quantity	Calories
Breakfast		
Lunch		
Dinner		
Snacks		
Total Calories		

Day 2

Food	Quantity	Calories
Breakfast		
Lunch		
Dinner		
Snacks		
Total Calories		

DATA SHEET 2: CALORIC OUTPUT

Student's Name _____ Total Calories for Day 1 _____

Weight in pounds _____ Total Calories for Day 2 _____

Weight in Kilograms _____ Average Caloric Intake _____
$\left(\frac{\text{Day 1 + Day 2}}{2}\right)$

Day 1

Activity	Hours Doing Activity (A)	Weight in Kilograms (B)	Number Calories Per Kilogram Per Hour (C)	Calories Per Activity A X B X C
			TOTAL	

Day 2

			TOTAL	

TABLE 1: CALORIC VALUES – COMMON FOODS

Food	Measure	Cal.
Apple Juice	236 ml	120
Coffee, black	236 ml	0
Cocoa	236 ml	234
Cola drinks	1 glass	105
Cream (heavy)	1 tbsp	50
Ginger ale	1 glass	80
Milk, choc.	236 ml	185
Milk, whole	1 glass	165
Milk Shake	1 glass	340
Orange juice	1 glass	105
Tea	236 ml	0
Tomato juice	236 ml	50
Angel-food cake	5-cm	110
Brownies	1 piece	100
Chocolate layer cake, fudge frosting	1 slice	350
Cookies	1 large	120
Cupcake, iced	1 med.	185
Doughnut, jelly	1 med.	185
Pie, apple	10-cm	335
Pie, pecan	7.5-cm	570
Pie, custard, pumpkin	10-cm	265
Baked beans-pork	177 ml	240
Chicken pie	10.6-cm	535
Hamburger & bun	1 med.	315
Hot dog & bun	1 med.	270
Macaroni & cheese	177 ml	350
Pizza (15-cm slice)	1 med.	200
Rice, boiled	118 ml	100
Soup, chicken	236 ml	80
Soup, creamed	236 ml	135
Soup, navy bean	236 ml	170
Spaghetti	118 ml	260
Stew (meat-veg.)	236 ml	252
Biscuit	1 (5-cm)	60-85
Cornbread	1 slice	100
Crackers, saltine	2 med.	35
French toast (no syrup)	1 slice	140
Muffin	1 (5-cm)	100-145
Pancake (no syrup)	1 (10-cm)	60
Raisin Bread	1 slice	65
Rolls, sweet	1 med	135
Rye Bread	1 slice	57
Waffle (no syrup)	1	120
White Bread	1 slice	64
Whole wheat Bread	1 slice	55
Bran flakes	236 ml	117
Cooked cereals	236 ml	165
Corn Flakes	236 ml	96
Grape Nuts	1 tbsp.	28
Puffed Rice	236 ml	55
Rice Krispies	236 ml	133
Almonds	236 ml	850
Apple	1 med.	75
Applesauce	236 ml	184
Apricot	1 large	18
Avocado	1 med.	360
Banana	1 large	119
Berries	236 ml	75
Cantaloupe	0.5 med	60
Cranberry Sauce	118 ml	225
Dates, dried	3-4	115
Fruit cocktail	78.7 ml	60
Grapefruit	0.5	60
Grapes	bunch	55
Orange	0.5	60
Peach	1 med.	35
Peanuts (roasted)	236 ml	805
Pear	1 med.	50
Pecans	236 ml	750
Plum	1 med.	35
Prunes, dried	4 large	115
Raisins	59 ml	115
Strawberries	236 ml	55
Walnuts	236 ml	655
Watermelon	1 slice	45
Butter	1 tbsp.	100
Cheese	2.5-cm	110
Cheese, cottage	2 tbsp.	30
Ice cream, vanilla	118 ml	145
Sherbet	118 ml	130
Bacon	2 slices	100
Beef, roast	1 slice	75
Chicken, fried	1 leg	230
Chicken, roast	2 slices	160
Eggs	1 med.	80
Fish (broiled)	85 g	135
Fishsticks or fried fish	85 g	170
Frankfurter	1 med.	155

Food	Measure	Cal.
Ham (lean)	56.6 g	125
Hash	85 g	120
Lamb	1 chop	140
Liver	85 g	195
Luncheon meat	2 slices	165
Pork	1 chop	250
Sausage	1 link	90
Steak	85 g	250
Tuna, canned	83.3 ml	115
Candy bar, avg.	1 sm.	130
Candy, hard	1	36
Caramel	1	50
Fudge, plain	6.45 cm^2	115
Marshmallows	1	25
Asparagus	6 spears	22
Carrots, cooked	118 ml	20
Carrot, raw	1 sm.	25
Carrot-raisin sal.	3 tbsp.	150
Celery	2 sm.	5
Coleslaw	118 ml	60
Corn	118 ml	85
Corn on the cob	1 ear	84
Green beans	118 ml	15
Green leafy veg.	118 ml	20
Lettuce (head)	0.25 med.	15
Lima beans	118 ml	90
Peas	118 ml	60

Food	Measure	Cal.
Pickle, dill	1 large	15
Pickle, sweet	1	22
Potatoes		
French Fries	6 pieces	90
Mashed	118 ml	65
Salad	118 ml	185
Sweet	118 ml	85
White, baked	1 med	80
Radish	1	1
Squash	118 ml	65
Tomato	1 sm.	25
Catsup	1 tbsp.	20
Gravy	2 tbsp.	55
Jam, honey	1 tbsp.	60
Jello	78.7 ml	50
Peanut Butter	2 tbsp.	190
Potato chips	10 med.	115
Popcorn		
lightly buttered	118 ml	35
Sugar	1 tsp.	16
Syrup	1 tbsp.	55
French	1 tbsp.	60
Italian	1 tbsp.	85
Mayonnaise	1 tbsp.	110
Russian	1 tbsp.	100
Roquefort	1 tbsp.	100
Thousand Island	1 tbsp.	50

TABLE 2: ACTIVITIES – CALORIES USED UP FOR EACH KILOGRAM OF BODY WEIGHT FOR ONE HOUR

Activities	Cal./kg/hr.	Activities	Cal./kg/hr.
General		Very severe exercise	8.6
Active Exercise	4.1	Walking down stairs	5.2
Bicycling (10 mph)	6.2	Walking moderately fast	4.3
Bowling	4.0	Walking slowly	2.9
Carpentry	3.4	Walking very fast	9.3
Dishwashing	2.1	Walking up stairs	15.8
Dressing and undressing	1.7	Waterskiing	5.7
Ice skating, leisurely	4.4	Basal Metabolism	1.0
Ironing	2.0	Athletic/Olympic Events	
Jumping rope	11.0	Backstroke, swimming	9.0
Light exercise	2.4	Bicycle racing	10.2
Mountain climbing	8.8	Boxing	13.8
Playing golf	4.0	Butterfly, swimming	11.4
Racquetball	7.9	Cross-country skiing	12.0
Reading aloud	1.5	Equestrian event (horseback)	9.0
Running (7.5 mph)	11.0	Figure skating	11.4
Severe exercise	6.4	Freestyle, swimming	10.8
Sewing or knitting	1.6	Gymnastics, parallel bars	9.0
Sitting at rest (includes eating, studying, etc.)	1.4	Gymnastics, balance beam	6.6
Singing	1.7	High jumping	10.8
Sleeping	0.9	Karate	7.8
Snowshoeing (3 mph)	5.3	Long distance running	10.8
Standing relaxed	1.5	Long jumping	19.2
Sweeping	2.4	Slalom skiing	10.0
Swimming, recreational	8.8	Sprint running	19.8
Typewriting	2.0		

In summary, discuss the following questions with the class.

- *How does your Caloric intake compare with your Caloric output? Are these reasonably close or drastically different?*

- *Examine the foods in your daily intake. Are the four food groups represented? Is there an appropriate 60:25:15 (percentages) ratio among the three nutrients; carbohydrates, fats, and proteins? Are "junk" foods a major portion of your diet?*

- *Why do you eat? Is it for enjoyment or obtaining good nutrition for life? Do you believe, "We are what we eat!"? Explain.*

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8-9 DRUGS & THE OLYMPICS

OBJECTIVES...to alert young people to the dangers of athletics-related drug abuse...to have students learn the profound changes in normal body metabolism and functioning caused by certain drugs...to have students become aware of the moral consequences of drug use in a competitive setting...to inform students of the tremendous pressures to conform to prevalent drug use patterns in an athletic/Olympic setting...

NOTE...The use of drugs in the Olympic Games (and in athletics in general) has accelerated within the last 20 years. Estimates have many athletes using drugs to enhance their athletic prowess. The purpose of this unit is to present, for discussion by teachers and their students, specific drug information gained from physicians, athletic officials, and athletes themselves.

ACTIVITY...*1*...Drug use by athletes in athletic events in general, and in Olympic Games in particular, has been endemic, but relatively low-key, for many years. The two most prevalent drugs used to stimulate athletic ability are: anabolic steroids and amphetamines. In response to a growing drug problem in the athletic community, a clause was added to the Olympic oath required of all Olympic athletes in Mexico City, 1968. Each athlete had to sign an affidavit stating that he or she had never used and were not using anabolic steroids. Some athletes, by their very competitive nature, have always been willing to "shade the rules" to gain an edge, but widespread win-at-any-cost compulsions are relatively new. Also new is this widespread use of drugs to further competitive goals.

Since anabolic steroids and amphetamines (as well as many other drugs) are banned from international athletic competition, there is a conspiracy of silence about their use. However, it isn't difficult to piece together a picture of common usage. Few athletic officials from Communist countries have spoken out on drug use, but some have done so, revealing a high degree of drug use by athletes. Anabolic steroids are sold over the counter in most Communist countries, requiring only an easily obtained prescription. In America, track athletes from California routinely travel to Mexico to buy steroids over the counter. A number of track coaches have speculated that a significant percentage of top-ranked U.S. track and field athletes use steroids.

Assign readings from the list of references on page 105 preparatory to discussing the following questions.

Why was the use of drugs, even 20 to 30 years ago, relatively uncommon compared with almost universal use today?

What pressures would cause an athlete to turn to either amphetamines or steroids or both?

Why is it that athletes find it relatively easy to obtain drugs even though they are banned?

What evidence is there about the long-term effects of these drugs on the bodies of the athletes who use them?

Instruct the students to develop essays, supported by research, on these and related questions.

ACTIVITY...2...Amphetamine use in the Olympics...Amphetamines are a group of commonly-used stimulants banned for use by athletes. They are classified as stimulants of the central nervous system. Their use is governed by the Federal Drug Abuse Control Amendments of 1965. Amphetamines, commonly called "cartwheels," "benzies," "roses," "hearts," and "bennies" are of two general types: dextroamphetamines, with street names of "hearts," "football," "oranges," and "dexies;" and methamphetamines, commonly called "speed" (because of its rapid effect on the brain when taken), "meth," "crystals," and "whites." Amphetamines, in general, are also called "pep pills" and "uppers" due to their invigorating effect on the body.

People take amphetamines to:

- Create a feeling of euphoria
- Slow the onset of fatigue
- Increase mental and motor alertness
- Mask the feelings of depression

Athletes take the pills for the first three reasons. Typically, they would take tablets shortly before their event. This would provide them with increased breathing and heart rates, stimulate the brain and make the athletes believe that they can achieve superior performances. The use of amphetamines "can provide concentration in times of self-doubt. For the discus thrower or weightlifter who wonders whether or not he can get it all together, the pill becomes a competitive crutch. For the basketball player, it might be what keeps him moving on the fast break when tired legs tell him to quit."

Amphetamines do have a proper medicinal use when governed carefully. They are used to treat narcolepsy (falling asleep frequently during the day), fatigue, depression, as a neutralizer for depressant poisoning, petit mal epilepsy, Parkinson's disease, and in weight control. (Amphetamines are commonly included in diet pills which makes their use attractive to gymnasts who covet slight builds.) However, as many athletes have discovered, the use of amphetamines has serious side effects. Amphetamines can cause behavioral changes, cerebral hemorrhage, nutritional problems, elevation of blood pressure, dilation of the pupils, anxiety, wakefulness, dry mouth, headaches, nausea, vomiting, irritability, tremors, and abdominal cramps.

Although there doesn't appear to be a physiological addiction caused by amphetamine use, there are strong psychological factors that encourage its continued use. There is a great danger of chronic overuse. "If one makes you feel good, two will make you feel great" is a chorus frequently heard. In addition, the body rapidly tolerates amphetamine use, requiring larger and larger doses to produce the desired effect. Athletes commonly come down from a "high" by the use of tranquilizers causing a never-ending cycle:

→ uppers → downers → uppers → downers, etc. →

For those athletes who chronically use amphetamines heavily, the pattern is a cycle: "rush," leading to a feeling of being "strung out," which in turn leads to "crashing." This process takes several days and is usually started again when the athlete uses amphetamines again to get up from the "crash" with a "high."

Have two students write and act out a dialogue with one student being a "straight" athlete and the other an amphetamine user.

Their discussion should mention the:

- Advantages which athletes claim amphetamine use brings
- Side-effects of drug use
- Psychological addiction common among users
- Morality of amphetamine use

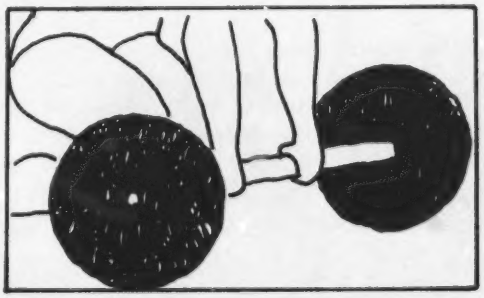
Why would the term "descending spiral" be perhaps a more appropriate term to use than "cycle" in describing the amphetamine-barbiturate cycle"

Why could the use of amphetamines in Olympic or other athletic competition be called immoral? (Students here should refer to the effects amphetamine use would have on their own bodies, the unfair advantage they would have over non-users, and the fact that amphetamine use is prohibited.)

Why do you think amphetamine use by athletes has been prohibited from use in the Olympics?

ACTIVITY...3...Make copies for the class of the background information which follows. When students have read the material, initiate a class discussion using the questions provided, and others.

Anabolic steroid use in the Olympics... George Frenn, United States Olympic hammer thrower, upon seeing Alexeyev, the Russian superheavyweight weightlifter said, "Alexeyev's face was so blown out of proportion it looked like it was going to explode out of his skin. That's usually a sign of heavy drugs, especially steroids... and he had these little cholesterol globules that collect under the eyeball from too large a dosage of



steroids." Vasily Alexeyev was most likely a chronic user of anabolic steroids prior to the Montreal Olympics in 1976 when Frenn observed his performance. He probably escaped detection by having his body flushed of the banned drug just prior to the competition.

Anabolic steroids, the chief of which is the male sex hormone, testosterone, have many legitimate uses in medicine. They are sometimes used to treat patients after surgery and to treat pituitary dwarfism...at a dosage rate of 5 milligrams per day. However, anabolic steroids are readily obtained in many places in the world and are used by some Olympians to gain an advantage in competition. The term "anabolic" refers to the body-building characteristics of this class of drugs. In the 1960s, steroids became popular among body builders, wrestlers, weightlifters, and football players, usually in massive doses of up to 500 mg/day, to increase muscle bulk, weight, and strength. Steroids are now even used by athletes of slight build, such as track runners, in the belief that they provide explosive power for sprinting at the end of their races.

The use of anabolic steroids such as testosterone is not restricted to men. Women are making common use of this drug, especially in Communist countries. Taking steroids does develop the musculature of a woman athlete, creating greater strength and endurance, but it also blurs the distinction between men and women. Comments former UCLA women's track coach Pat Connolly, "The use of steroids does...I hate to say this, but it's true...make freaks out of women. Women are beautiful creatures the way God made them, and they can do a lot of things tremendously well. We don't even have any idea of how well we can do some things because we haven't been trying very long. But, by taking male hormones, a woman is really changing what she is all about."

In 1979, an East German woman sprinter "came in out of the cold" and defected to West Germany. She told a tale of widespread steroid use among East German women, including herself. She told how she had been forced against her will to take drugs on a regular basis under threat of reprisals against herself and her family. When she defected, she brought samples of the drugs she had been taking, which were later analyzed and determined to be anabolic steroids. She was first forced to take the hormone tablets in 1977, when she was 18. She was given two different tablets two or three times a day for two-week periods, a cycle which was repeated after a ten-day break. The woman developed peculiar and painful side effects, including a hardening of her thigh muscles that sometimes caused difficulty in walking, occasional loss of voice, a thin growth of hair on her upper lip and, like other members of her sports club, frequent interruptions of her menstrual cycle. Miss Neufeld, the woman sprinter, is the first major athlete to speak out against the use of anabolic steroids.

In general, anabolic steroid abuse in women can lead to liver damage, deepened voice, facial and chest hair, menstrual irregularities, and impairment of reproductive capacity. Steroid abuse in men can lead to liver damage, shrinkage of the genitals, and impotency. In addition, steroid use in the young athlete can produce premature bone ossification leading to stunted growth. Perhaps the most frightening aspect of steroid use is the fact that athletes readily abuse their bodies with large doses of steroids in the absence of adequate scientific

information about short-term and, especially, long-term effects of the drugs on their bodies.

As a cautionary note on the use of anabolic steroids, it is by no means confirmed that these drugs actually do help the athlete. Some scientific studies have been done on steroid use on athletes but the results are not conclusive. Reports Raymond V. Brooks, a noted medical authority, "I think the androgenic (producing masculine characteristics) action makes the athlete more aggressive, more competitive, so the athlete trains harder, for a longer period of time perhaps. Any increase in performance is a result of harder training. There may be some indirect anabolic action, because heavier training may increase the appetite and the athlete may eat more. But it's not a direct action of the muscle cell."

What type of person would most likely use anabolic steroids?

What benefits would a woman athlete hope to get from the use of a male hormone when the side effects are so troublesome?

What is the morality of using an unproven drug which amounts to a voluntary human experiment with a banned drug?

Anabolic steroids are most commonly used in Communist countries: Why would this be so?

Discuss the pressures on the young East German woman sprinter to conform to steroid use.

ACTIVITY...4...Distribute to the students copies of the information provided below and discuss with them the assignment and the questions at the end of the activity.

Drug detection at the Olympics...By 1967, the use (by athletes) of many drugs to enhance competitiveness became so prevalent that the International Olympic Committee banned the use of many drugs, especially amphetamines and anabolic steroids. Drug testing at Olympic Games began on a small scale at Grenoble, France during the winter Olympics of 1968. Drug assay at the Olympics has increased in both breadth and sophistication since these Olympics. At the present time, drug detection equipment can detect over 200 banned drugs.

Relatively little is known about drug detection at the Moscow Olympics in 1980 due to the widespread boycott by the West and the secretive nature of the Russians. However, the testing situation at Lake Placid in 1980 is typical of the current testing procedures. Lake Placid used 16 gas chromatographs, four of which were linked to mass spectographs for the most sensitive testing. Millions of dollars were tied up in this sophisticated equipment. The sensitivity of this equipment is such that it can detect one-trillionth of a gram of amphetamines in a urine sample. The equipment can detect stimulants and painkilling narcotics which are taken 72 or 96 hours before the event and anabolic steroids used as long as six or seven weeks prior to the tests.

The drug tests are administered to two athletes selected at random from each team in every team event held

as well as to any athlete whose performance seems unusually good. In the individual events, the first four finishers are tested as well as two or three competitors selected at random. Within one hour after the event, the athletes are sent to the testing site where at least 50 ml. (about 2 oz.) of urine is collected. The sample is sent to the laboratory in two bottles — one is stored in a sealed box in a refrigerator while the other bottle is analyzed immediately. The sample is placed in a gas chromatograph which separates the components of the urine one at a time. Of the drugs, amphetamines come out after about three minutes, steroids and narcotics in about twenty minutes. The presence of any drug is signaled by a "spike" in a pengraph tracing produced by the machine. If there is no spike, there is no drug present.

If the test is positive for a drug, the type of drug will be accurately identified by the mass spectrometer. If a banned drug is positively identified, the Olympic medical commission will inform the chief of the athlete's delegation and a test on the refrigerated sample will then be done. If the first results are confirmed, the game is forfeited and the athlete will lose his or her medal and may be disqualified from the Olympics. In individual events, the medal will be lost by the athlete as happened to Brian DeMont, a United States gold medal swimmer in the 1972 Munich Olympics. He unknowingly used a forbidden drug which was in an asthma medicine he took just before his gold medal-winning race.

In Montreal 1976, drug testing detected only 11 positives out of 2,049 tests. Eight of these were anabolic steroids. Six of these detected were weightlifters. Two of the 11 were Americans, but most were from the Communist bloc.

As a result of tightened drug restrictions, elaborate methods have been devised by drug-using athletes to escape detection. It is rumored that some weightlifters are using an unusual steroid that cannot be detected now, but a new test is being devised to uncover this drug in the future. The increased detection pressure has driven athletes "underground," and, as a consequence, they are resorting to less pure forms of their desired drugs with all of the attendant problems of "dirty" drugs.

At present, penalties for being caught are little more than a slap on the wrist. Typical of the inconsequential penalties imposed is a recent suspension of five Belgian cyclists for one month with one year probation for drug use. Other athletes caught received a one-year suspension.

There is no current agreement on how to deal effectively with the widespread drug use among Olympic athletes and athletes in general. It would be an effective tactic to regulate closely and test athletes in training since this is where much of the abuse occurs. However, there is no authority, national or international, to do so.

Summarize the material you have read about testing for drug use by athletes in the form of a flowchart designed to show the steps involved for:

- *the "clean" path*
- *the "spike" path leading to the penalties involved*

Select the most succinct student summary and prepare from it a transparency for the overhead projector. Have the other students correct or modify their charts in accordance with the projected model.

The actual punishment by the International Olympic Committee is relatively light. However, the psychological effects of suspension and removal of a medal could be far-reaching.

What kind of an effect would suspension and medal loss mean to an athlete in his or her relationships with fellow athletes?

What kind of a reception could the athlete expect to face upon arriving home from the Olympics?

ACTIVITY...5...Pressures on athletes to conform to drug use...Typical of the sometimes tremendous pressures on athletes to use prohibited drugs is the following statement made by an American football player, "Doc, I'm not about to go out there against a guy who is grunting and drooling and coming at me with big, dilated pupils unless I'm in the same condition." Most athletes would prefer not to take steroids or amphetamines but they're afraid not to take them. They are concerned about what the next athlete, against whom they are competing, might be taking. Raymond V. Brooks, a noted medical researcher states it succinctly, "The trouble is that this is a very psychological business, and athletes who don't use steroids feel that they're at a disadvantage if someone else takes them and gets away with it. I think the athletes want the (detection) tests, because they want to be able to compete under equal conditions without taking unnecessary risks with their bodies."

Much of the drug abuse is confined to Communist countries, notably East Germany. This country's population is one-fifteenth that of the United States, yet in the 1976 Montreal Olympics the East Germans won 90 medals, six more than America. Much of their success is undoubtedly due to a careful, scientific, and heavily subsidized selection and training of their athletes, but drug abuse is also common. Their use of steroids particularly is controlled and very scientific. It is assumed that virtually every East German athlete is being aided in training by the use of steroids. One of the most frequently recited happenings of the 1976 Montreal Olympics was the question put to an East German swimming coach about the deep voices among many of his women swimmers. In reply he stated, "We have come here to swim, not to sing."

Develop a script for a dialogue between two athletes, one a drug user and the other a non-user. Consider the following as features of such a conversation:

- *Convincing the non-user to begin using anabolic steroids or amphetamines*
- *Talking a user out of his/her dependence*
- *Discussing the ethics and morality of drug use in the Olympic Games*

Why are Communist countries more successful at the Olympic games than are Western and Third-World countries? (There are many reasons for this but drug use should be included here.)

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8-9 VIOLENCE IN SPORTS

OBJECTIVES...to assess the degree and types of violence that exist in athletic contests in the United States...to cite those sports in which extreme aggression and violence are distressingly frequent...to study the typical violent acts committed by the athlete and the spectator in the aforementioned sports...to consider Olympic events that are or could be conducive to violence...to ascertain the psychological and physical causes of violence in sports...to propose corrective measures for eliminating violence from sports events...to learn about processes for conflict resolution and the prevention of violence in general...

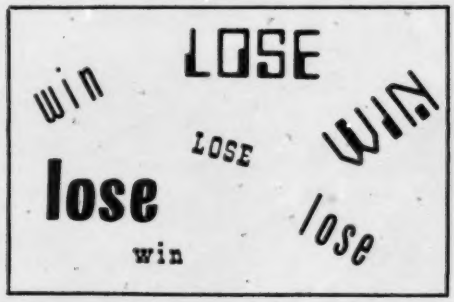
BACKGROUND...The various media frequently convey to us disturbing news incidents. "Heavy hitter bombarded with beer bottles as he heads for home!" "Spectators maul referee at halftime of football game!" "Hockey game discontinued because of riot instigated by player's assault on spectator!" The aforementioned do not include the increase in the incidence of violent acts between athletes themselves. In other parts of the world, athletes, referees, and spectators have been accidently killed in riots or even murdered in anger during sports events. One recognized expert in the area of conflicts and their resolution predicted recently that an athlete or referee would be assassinated in the United States in the near future. With the exception of the terrible Palestinian terrorist attack on the Israeli team at Munich in 1972, the Olympic Games have not yet experienced the sports violence which characterizes athletic contests in many nations.

The world of sport must address this distressing problem or certain team and spectator sports will have to be strictly monitored, drastically altered, or possibly discontinued. In 1980, we were witness to a soccer match between an English team and a Spanish team played in an empty stadium because of the fan violence that had erupted during their previous encounter.

ACTIVITY...*1*...Write the following concepts on the chalkboard or overhead projector: contact sport, team sport, competition, aggression, conflict, emotion, foul, penalty, assault, and violence.

Pose these questions to the class and conduct a discussion on the meaning of, and contributing causes to, violence in sports.

- *Can each of you define these words?*
- *Is there a meaningful relationship among them?*
- *Can you name the essential groups of individuals or organizations that are associated with amateur and professional sports events?* (athletes, teams, coaches, managers, NCAA, AAU leagues, referees and umpires, spectators, and media commentators/writers)



- *Which of the aforementioned groups of people are directly responsible for violence in sports? Indirectly responsible? Seldom responsible?*

- *Does the nature of the facilities or locations in which games and sports events are held help precipitate violent incidents in any way? Explain.*

- *Why are individual performances associated with track and field, swimming, tennis weightlifting, gymnastics, and competitive skating and skiing, for example, seldom, if ever, the scenes of aggressive acts or violence?*

- *Are sports such as boxing and karate different than other individual type sports? In what way?*

- *Does the desire and pressure to be "number one" in any way contribute to violence in sports?*

ACTIVITY...2...Ask student volunteers to write on the chalkboard the names of as many team sports as they can in the United States that seem prone to violence for some reason (football, hockey, basketball, baseball, soccer, lacrosse. wrestling).

Allow groups of students to select the sports with which they wish to work. Direct each group to investigate assaults or violent acts in its selected sport as follows: (1) write down from memory an explicit description of recent incidents; (2) follow the news media for a week or more and record such incidents; and (3) identify the perpetrator(s) involved. (See third and fourth questions in ACTIVITY 1 above.)

Each group should be certain that they are citing violent acts involving people, not vandalism or destruction of property, which is another serious problem.

After a reasonable time for the above research, ask each group to record its findings on the table below. Discuss the collected information with the class.

Data Table — Violent Acts in Sports

Sport/Group	Violent Act — Brief Description	Individual or Groups Involved	Perpetrator

- *Is each incident recorded <u>really</u> violent?*

- *Which sport shows the highest incidence of violence, according to this study?*

- *Is there a typical act of violence usually committed? Explain.*

- *Who is the usual perpetrator?*

ACTIVITY...3...Display pictures about the room or show a movie depicting athletes performing in a variety of Olympic events. Now direct the students to use the scale below to rate the <u>potential for violence</u> during each of the events cited. These might then be categorized on the form as follows:

unlikely 1	seldom 2	maybe 3	probably 4	likely 5
figure skating	gymnastics	cross country skiing	basketball	water polo, hockey

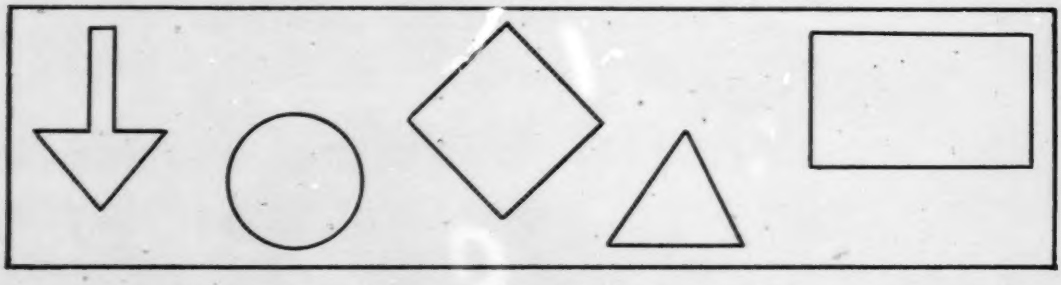
In order to bring credibility to this study, share the study with a coach or physical education instructor and ask him/her to visit the class for a discussion of violence in sports and in the Olympic Games.

ACTIVITY...4...Ask the students to consider <u>why</u> one athlete "attacks" another; <u>why</u> a spectator hurls a missile at an athlete on the playing field; <u>why</u> conflict and violent acts occur at contests designed for healthy competition, relaxation, and enjoyment.

- *What are the events (steps) and circumstances which lead to the commission of a violent act in the arena of sport?*

Using the symbols and the procedures suggested below, create an incident of sports violence in a flowchart format.

- Have several students construct 10 of each of the following symbols from construction paper, plastic, or flannel material. Make them sufficiently large so that the entire class can see them. The application of the symbols to a magnetic board would be ideal.



- Ask several other students to print labels on the symbols from the list which follows. One word or phrase should be lettered on each symbol in accordance with the key below. They may want to give the words certain shapes:

for actions (strikes, injures, etc.);

for emotions (anger, fear, etc.);

for individuals involved; and

for contributing factors (pain, temperature, etc.)

The flow- will be used to facilitate this charted activity.

Students should be aware of the physiology of an emotion such as anger: increase in heart rate and blood pressure; irregular breathing; slowing of the digestive process; increase in sugar in the blood for the muscles; dilation of pupils; and increased perspiration. These factors accelerate conflict.

STRIKES	ATHLETE	ALCOHOL OTHER DRUG	PERSONAL PROBLEM
INJURES	SPECTATOR	EXPELS	CROWD'S ROAR
MAKES CONTACT	ANGER RAGE	OFFICIAL	ARRESTS
FEAR	PENALIZES	COACH	TEMPERATURE
HATE	THROWS OBJECT	INSULTS	HUMIDITY
GESTURES		PAIN	SPECTATOR

- Explain to the class the basic concept of stimulus ⟶ response; that even human behavior, although often complex, can often be analyzed in this cause and effect relationship. Review the simple spinal reflex to emphasize stimulus ⟶ response.

- Now, direct all the students to study the labeled symbols and to question their meaning. After this discussion, organize the class into five groups. Assign them the following "incidents of violence" and, after they have had sufficient time to plan, challenge each group to reconstruct its "incident" before the class using the labeled symbols on the demonstration board. Admonish the students to include all the components

of the "incident" as it happened...no more, no less. Once each incident has been reconstructed, members of the class may wish to ask questions and to make suggestions regarding what happened and why it happened.

A hockey fan, screaming, "you're losing the game," vaults into the penalty box, pulls a hand gun and shoots the captain of the team in the arm. The rink guards eventually overcome the attacker and arrest him.

A fifteen yard penalty near the goal line infuriates the offensive team. One lineman argues with the referee, pushes him to the ground breaking his arm. He is removed from the game.

As the crowd roars its disapproval for the visiting team, one spectator throws a beer bottle that hits the base runner rounding third in the face and breaks his nose. The spectator is never identified.

A spectator, angered by the foul language shouted at the players on "his" basketball team, tells an individual to "shut up or else." A shouting match results; then several people hold weapons in their hands — two knives and a gun. Before the arena police can stop the conflict, one spectator has been slashed in the face.

A football player, angered by a persistent shout in the crowd, leaves his bench, charges into the stands, and strikes and injures one of the spectators with his helmet. A referee expels the player from the game.

Encourage the students to invent their own acts of violence for analysis by the class.

ACTIVITY...5...Solicit the students for their suggestions on how to eliminate or reduce violence at sports competitions. The following are provided for the teacher to stimulate the discussion, if necessary.

- Attempt to convince the sports public that athletic teams play "with" each other, not "against" each other as perceived by most spectators — that athletes compete in a contest "controlled" by the officials.
- Advise spectators not to attend a sports event if they are experiencing serious personal problems or have a tendency for aggressive behavior.
- Induce coaches, managers, and the sports media to downplay winning at any cost and the "number one" mania that saturates athletics.
- Educate those who conduct and control sports events concerning the most recent findings on mob behavior.
- Improve the procedures established for making personal searches of spectators for weapons.
- Apply the precepts of Olympism to all phases of athletics.
- Restrict or outlaw team and contact sports.

- Monitor the commentary of sportscasters who have a tendency to make inflammatory remarks. At a recent college basketball game, the announcer repeatedly referred to the "war going on here in the arena."

*ACTIVITY...6...*Stress with the students the seriousness of human conflict. Point out that violent acts are the basest form of behavior and that, on a national scale, such acts constitute war.

- *What precedes violence?* (conflict, confrontation)

- *Is conflict normal?* (Human conflict is inevitable, but if we take the time and make the effort, conflict can be resolved and violence prevented.)

How we handle conflict is critical for our well being as individuals and as members of teams, organizations, and society.

Using the chalkboard or overhead projector, lead the students through the following steps to increase their understanding of the meaning and control of conflict.

Step 1: Contributing Causes of Human Conflict

Cite an example of a conflict situation resulting from each of the following:

- *Lack of food* _____
- *Too little land to live on* _____
- *Different nationalities* _____
- *Different religious beliefs* _____
- *Different moral values* _____
- *Resistance to being touched or mentally manipulated* _____

  _____
- *Negative personality* _____
- *Not being liked by others* _____

Now have the students write out conflict experiences of their own. They might be asked to first recall situations that occurred in a sports setting. Each should identify the contributing cause, provide a brief description of the incident, and then cite the outcome of the conflict. You may wish to have several of the students read their "conflict essays" to the class. (Tact should be exercised when dealing with personal experiences of students.)

Step 2: As pointed out at the start of this activity, conflict is inevitable but it can be resolved. Since it is a mental challenge, the means to resolving conflict is through effective communication, and not physical violence.

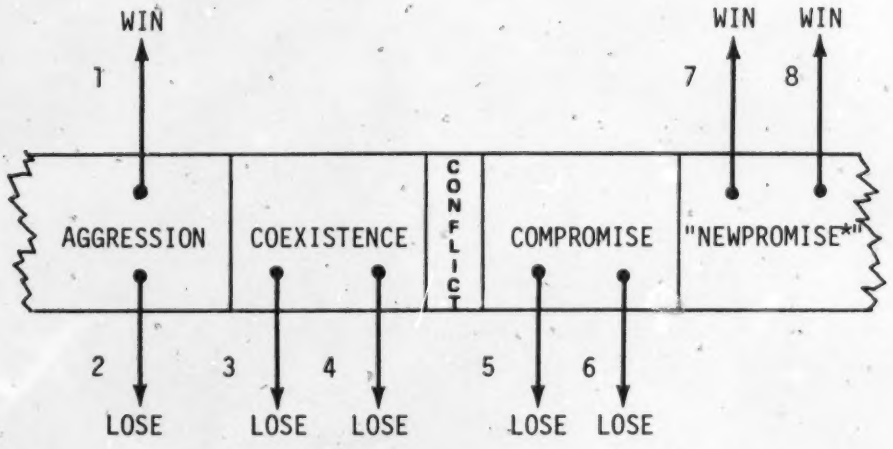
- Explain the meaning of the following:

  - Some people look but do not see.
  - Some people listen but do not hear.
  - We (Americans) do not touch each other.

Emphasize with the class that this type of communication should:

- Definitely be "two-way"
- Be conducted at the "feelings" level by both sides. In other words, normal human emotion should be retained.
- Consist of the proper exchange of words; i.e., be tactful.
- Include if necessary, a "catalyst" (arbitrator)-type person who is trusted by both sides and has the ability to clarify the conflict problem; secure his/her participation, and persist in the resolution of the conflict.

Step 3: Provide the class with the diagram below outlining various methods for solving conflicts.



Explain that the diagram depicts four ways that a conflict can be settled: outright aggression; compromise; coexistence; and, a mutually agreed upon "newpromise*." These are the goals of people in conflict. The individual persons or parties involved in a conflict are represented by the numbered arrows. The possible outcomes or results of a conflict for those involved are: Win-Lose (one wins and the other loses); Lose-Lose (both lose); and Win-Win (both win).

Ask the class the following questions:

- *What is aggression? What is aggression between nations called? Does aggression "solve" a conflict? What finally happens to parties 1 and 2? When an individual, organization, or nation resorts to aggression, is violence averted? Provide examples of this type of solution.*

* Dr. Irving Goldaber, National Authority, Conflict Management

- *What is the meaning of coexistence? How is it different than a compromise? What happens to the parties 3 and 4 involved? Do they work with each other to achieve a satisfactory condition or outcome? Explain. Would the coined word "bi-existence" apply any better to this type of conflict resolution? Is coexistence better than aggression as a means of solving conflict? Can you list any examples of coexistence?*

- *Do you think it is possible for both parties in conflict to "WIN?" What is the difference between arguing against and arguing with someone? Is it possible to disagree agreeably?*

If such a cooperative means to the resolution of a conflict is possible, maybe the conflicting parties 7 and 8 should be termed "apposites" (side-by-side) instead of opposites (face-to-face). Positive communication and leadership are essential for success; the resulting agreement might be called a "newpromise." Both sides can win. This could be a very effective approach to conflict resolution and to the prevention of violence.

- *Where is this process used today?*

8-9 SAVING THE GAMES

OBJECTIVES...to realize that the Modern Olympic Games, originally organized to bridge the barriers of nationalism, have frequently been entangled in politics...to compare the intended meaning of Olympism with that practiced by some individuals and nations today...to cite the advantages and disadvantages for applying politics to the competition, awards, and ceremonies...to explain the purpose and to assess the effectiveness of the boycott imposed on the 1980 Moscow Games by the United States...to study and to propose ways that might improve the status and brighten the future of the Olympic Games and Olympism...

BACKGROUND...During the recent crisis of the XXII Olympiad, the influence of politics upon the Olympic Games has been throughly debated. Lord Killanin and Avery Brundage have repeatedly insisted that the Games are contests among individuals, not nations. On the other hand, George Orwell called them, "war minus the shooting." The ideals of the Olympics would seem to preclude political behavior by athletes and their sponsors, but unfortunately, some nations and individuals cannot resist the opportunity. Is it in fact possible to keep politics out of the Games, or must we resign ourselves to the nature of man and his institutions?

ACTIVITY...*1*...Discuss and define with the class the following terms and concepts:

- nation
- nationalism
- political
- politics
- Olympism*

Settle upon succinct, understandable definitions and place them on the chalkboard. Organize the class into groups of six and direct them to investigate the following events in the history of the Games. For each incident the group should determine (1) the host and pertinent nation(s) involved, (2) the reason for the injection of politics or nationalism into the Games, and (3) the effect, if any, on Olympic or world history. A map should be available for reference.

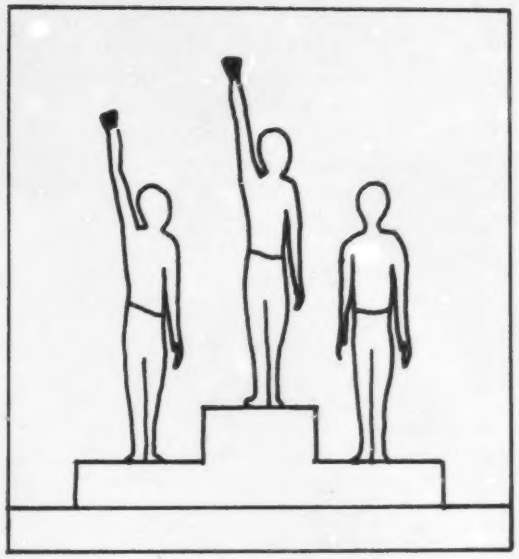
- At the Berlin Games in 1936, a powerful dictator used the occasion to try to demonstrate the superiority of the Aryan "race" in the competition and to emphasize the glory of his nation.

- At the 1948 Olympics in London, Israel was excluded to avoid a boycott by other nations.

- In 1956 at Melbourne, the Hungarian and Russian athletes competed violently against each other because the former were enraged by an event at home.

*See FOREWORD.

- In 1968, two victorious American sprinters raised their gloved fists in "salute" when they stood on the awards platform.
- During the 1972 Olympics at Munich, an attack by terriorists resulted in the deaths of 11 members of one of the national teams.
- In 1980, just prior to the Lake Placid Winter Olympics, the Taiwanese team was prevented from participating by a New York State court. Mainland China is the legal Olympic nation.



- In 1980, the president of one country imposed a boycott, supported by 35 other nations, against the Summer Games in Moscow.

Require the student groups to report their findings to the class. Now ask the class to consider the following questions:

Are the Olympic Games influenced by historical events? What is the relationship?

Is an outward expression of nationalism by the hosting country necessary for a successful Olympics? Why or why not?

Have the Olympic Games ever been cancelled in modern times? When? For what reason(s)?

Were the Ancient Olympics affected by politics or nationalism? Explain.

Is Olympism really possible when many individuals believe and practice, "Winning isn't the most important thing; it's the only thing."

How can the Olympics contribute to world peace?

ACTIVITY...2...Propose that the class is "a nation hosting the 1988 Summer Olympics."

State the advantages and disadvantages your "nation" might experience by accepting this opportunity and responsibility with reference to the following factors:

- *Prestige in the world*
- *Patriotism of the people*
- *Proof of national strength and superiority*
- *Success of the nation's athletes*
- *Cost of facilities*

- *Advertising athletic and other products*
- *Impact of facilities' location on environment*
- *Television coverage*

Assuming that "your nation" eventually hosted the 1988 Olympics, in what ways would they be valuable to the country after they were concluded?

Research the specific advantages and/or disadvantages the following locations (nations) have experienced after hosting the Olympics: Mexico City, 1968; Munich, 1972; Montreal, 1976; and, Lake Placid, 1980.

ACTIVITY...3...Define the word "boycott" for the students and explain its etymology. A brief simulation of a boycotting condition in the classroom might be useful. Now involve the class in this role-playing activity:

- Organize the students into six groups representing the following: United States Government; American people; various American "Olympic" Athletes; Soviet Government; Russian people; and the International Olympic Committee. Identify a leader/spokesperson in each group.

- Require each of the groups to research the boycott initiated by President Carter against the 1980 Summer Olympics at Moscow.

  Provide the students with sufficient time to review old newspapers and magazines and to converse with their parents and each other regarding this clash of Olympic and political histories.

- Have the established groups "act out" the following sequence of "scenes" that present the boycott and subsequent events in an organized manner. For each scene, provide all the students with a handout of their essential "lines" so that the identified group can act and react at the appropriate times and places in the script. There are four scenes: Boycott; Support; the Games; and, Aftermath.

  Since the teacher will play an active role in directing and pacing this activity, a correlating series of motivating questions, important facts, and speculative statements are outlined to the right of the script below. The teacher should encourage any group to become involved at any time regardless of the lines set forth.

Script	Background
SCENE 1: BOYCOTT	
It is January 1980. President Carter calls for a boycott by the athletes of every nation against the 1980 Summer Olympics in Moscow. He says, "Neither I nor the American people will support sending the American Team to Moscow while Soviet troops are in Afghanistan." As	Why does the President ask for a boycott? (In December, Soviet troops invaded Afghanistan and he wants to show the determined opposition of the United States to this act of aggression.) When is the deadline set for

Script	Background
alternatives he suggests the games be moved to another country or be postponed.	withdrawing the Russian forces and thereby canceling the boycott? (February 15, 1980)
The president of the I.O.C. (International Olympic Committee) replies to this challenge: "It's Moscow or nowhere. It would be virtually impossible to shift the games to another site."	Who is the president of the I.O.C.? (Lord Killanin of Ireland)
Representing the American people, the United States Congress votes unanimously in favor of the President's boycott.	The United States Senate votes 88 to 4 in favor of the boycott.
One Russian says about Carter: "He is going too far. This has nothing to do with Afghanistan. It is America's pure anti-Sovietism coming out again."	During their three-year preparation for the games, the Soviets have spent $375 million. The Soviet Union is the first communist nation to host the Olympics in the 84-year history of the Games.
The United States Government suggests that a "Free World Olympics" be conducted for those nations joining the boycott.	In 1976, 28 African nations boycotted the Montreal Summer Games. Should the United States have barred the Soviet team from the February 1980 Winter Olympics at Lake Placid?
Says a shot putter on the United States track team: I am 100 percent opposed to any pullout for any reason. We make the sacrifice; we pay our own way*; we're not connected to the government. It's not their life's dream that's being tampered with." (*See Note on p. 130.)	Don't the members of the teams of other countries pay their own way? (Explain the extensive subsidization of athletes undertaken by some governments.) If you were a member of the United States team, how would you feel about the boycott?
Former Olympic star, Bob Mathias: "Our people want to go to Moscow to beat the h_ _ _ out of those guys and tell them face to face what's wrong with them."	Should the United States Government disregard the Russian invasion of Afghanistan? What do you think of Bob Mathias' statement?
Another former United States athlete: "We would be naive to place track and field ahead of world events. Sports cannot live outside reality."	Do you think the U.S.S.R. will repay the United States by boycotting the 1984 Los Angeles Olympics?

Script	Background
One of the world's fastest milers, an American: "I'm an athlete; I am very frustrated and disappointed. But I am also aware of what an important political tool the Olympic Games represents. Our boycotting the Games would be both valid and effective."	
The government-controlled newspaper TASS states, "The Olympics will go on."	

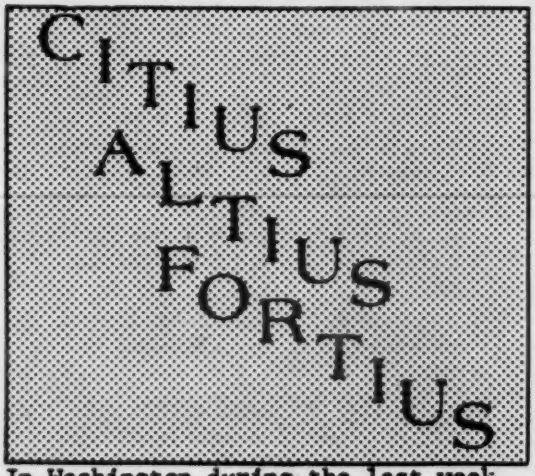
SCENE 2: SUPPORT

It is now February and the invasion of Afghanistan continues.	Where is Afghanistan? (A middle eastern country bordered by Russia, Iran, and Pakistan.)
Carter makes the boycott very clear: "I am opposed to United States participation in the Games regardless of what other nations do." Later on he said, "Ours (team) will not go...the decision has been made."	Why is the United States Government so concerned about this invasion? Could the President really stop an athlete from participating? (Legally, yes.)
The president of the United States Olympic Committee (part of the I.O.C. organization) replies: "I do not favor the concept of a boycott at all. The Games do not belong to the Soviet Union. They belong to the International Olympic Committee. To boycott the Games would be to show disloyalty to the organization to which we belong and to the Olympics."	What is the relationship between the U.S.O.C. and the athletes? (The U.S.O.C. organizes, finances, and supports the team.)
According to the United States Government, "Thirty-six countries have pledged, publicly or privately, to join the United States, but Italy and France point out that only the national Olympic committees, not governments, can make such decision."	Consider whether the absence of Japan, West Germany, and the United States might lessen the value of medals in men's gymnastics, track and field, basketball, swimming, judo, boxing, freestyle wrestling, and women's volleyball and swimming.
Again, Lord Killanin emphasizes the fact that the I.O.C. will never support the boycott. "...Athletes are defenseless against pressure of one sort or another. Governments	What are the "other arenas" Killanin refers to? The U.S.O.C. eventually votes to support the boycott and the President.

Script	Background
must find solutions in other arenas outside that of the Olympic stadium."	
Some American athletes noted that, "during twelve centuries of the Ancient Games, fighting countries and tribes suspended war every four years to compete but now the reverse is true, the Games get suspended at the first threat of war."	Even though the British Government supports the boycott, most of the country's athletes say they plan to attend.
The Russians claim that "the United States is using its athletes for political reasons."	N.B.C. cancels, with penalties, an $87 million contract with the Soviet Government to provide television coverage of the Moscow Games.
	Eleven thousand American tourists are wondering whether they should attend.

SCENE 3: THE GAMES

It is Saturday, July 19, 1980. The Olympic torch is ignited in Lenin Stadium in Moscow to signify the opening of the 22nd Summer Games.	As of July 13th, 29 nations notify the I.O.C. that they will <u>not</u> participate. Twenty other countries are still undecided. The United States Government hopes for 60 boycotting nations.
The Soviet Government claims: "The boycott is a failure. Eighty-two nations have accepted invitations."	When the Games begin, <u>36 nations</u> comprise the official boycott list. Ten competing teams defy tradition by refusing to take part in the ceremonial parade; another 16 refuse to carry their nations' flags.
Lord Killanin of the I.O.C.: "If <u>they</u> understand other matters as well as they understand sport, God help us all. If football and baseball had been in the Olympic Games, perhaps we would not have had a boycott."	Normally, there would be 110 to 120 teams competing in a summer Olympics.
	To whom ("<u>they</u>") does Lord Killanin refer?
A coach of the Jamaican track teams says of the Americans: "Their not being here will make it a lot easier for others to win medals."	The national committees of Great Britain, France, Italy, and Australia refuse to support the boycott.
	As a consequence of the boycott, some 200 of the 609 medals to be awarded in 21 different events might go to the Russian athletes.
	Only 2,000 American tourists attend the Games.

Script	Background
A reaction by the Russian athletes: "We missed the Americans — it's not the same."	The Soviet Government, on at least one occasion, censors news coverage of the Games being transmitted to the West because they claim the news included politics and not just sport.
Unable to compete, yet looking beyond the Games, the 800-meter champion, Don Paige, exclaimed: "I'll hang my new Olympic team suit in my trophy case and hope that I have a newspaper clipping about how I ran against a Moscow Olympic winner to hang next to it. Then I'll sit down and speculate about how I might have done in the Olympics."	United States Olympic team finalists were selected in meets around the country despite America's refusal to participate in Moscow.
One American exclaims: "Faster, higher, stronger — that's the Olympic motto. The motto for today might well be — bigger, costlier, more political, more frustrating!"	
	During the Games, the Russians flash the slogan: "O SPORT, YOU ARE PEACE, HAPPINESS, JOB." (How much do the Russian people know about Afghanistan?)
In Washington during the last week of the Games, 550 members of the United States team received commemorative congressional gold medals and visited the President at the White House. The head of the United States Olympic Committee comments: "It is our way of honoring the athletes who qualified as Olympians — We want them to know how much the nation thinks of them."	Without American competition, the Russians are supreme in the 1980 Summer Olympics...80 gold in a total of 167. East Germany finishes second in the medal count.

Script	Background
The United States Government makes it very clear: "The United States objects to any use of its national flag and anthem at the Games in Moscow, including the closing ceremony."	Why is the city of Los Angeles flag flown during the closing ceremony?
Thus, on August 3rd, the most controversial Olympic Games in modern history come to a close.	

SCENE 4: AFTERMATH

Scene 4 provides the students with an opportunity to assess the effectiveness of the boycott imposed by the United States Government. It is suggested that those students assigned to the groups representing the United States take the "pro" side and the groups representing the Soviet Union take the "con" side. Two groups, American Athletes and the International Olympic Committee, should volunteer to support either side. Relying on the play thus far and the news media statements below, conduct a classroom debate on the effectiveness of the boycott. Establish guidelines for discussion.

"Pro" Boycott	"Con" Boycott
"The boycott demonstrated a united front against the Russian aggression in Afghanistan and future aggression."	"The Moscow Games were a socialist (way of living) victory for the Soviet Union."
"The travel of American tourists to Moscow and their spending of dollars was greatly reduced."	"The crowds in Lenin Stadium were as great as in previous Olympics."
"The Soviet Government was stopped in its attempt to broadcast on television to the world how wonderful their way of life is."	"The boycott was a tool of the imperialists to embarrass the Soviet Union."
"The United States had to call the boycott. Otherwise we would have been accused of being weak in our reaction to aggression. 'It was the honorable thing to do.'"	"The American athletes became the unfortunate targets of the boycott. They suffered more than Moscow."
"It would have been very difficult for me to compete in a country which is killing innocent people next door. I could not have gone to Moscow and have felt good about myself."	"The central issue became the boycott, not Afghanistan."

*ACTIVITY...4...*Now that the class has vicariously experienced this recent threat to the very existence of the Games, involve them in a simulated attempt to "rescue" the Olympics for future generations. Using the same six groups established in the previous activity, direct each group to study the options below and then formulate a plan for the 1984 Olympics which would preclude occurrence of the problems described in the script. The students should be encouraged to develop ideas individually as well.

Each group will be expected to write a letter including its proposed plan to Juan Antonio Samaranch of Spain, the new President of the International Olympic Committee. The teacher will want to evaluate each letter for its neatness, organization, persuasiveness, supportive arguments and most importantly, its potential for "rescuing" the Games in 1984 and later years. Some suggestions to help the students follow.

- Construct an Olympic facility at a permanent site. Both winter and summer locations should be considered. Might the city of Los Angeles concede its host status as an inducement for international support in this endeavor?

- Pledge a large amount of money to develop two sites and organize a fair and reasonable plan for financial support by all nations involved.

- Eliminate team sports which tend to emphasize nationalism and political status.

- End the now meaningless distinction between amateur and professional status of the athletes.

- Consider ways to reduce the tremendous cost of conducting the Olympic Games every four years.

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APPENDIX - OLYMPIC CONCEPTS

The following are concepts which seem to epitomize the activity and spirit which are the Olympic Games and characterize or expand upon the central concept of Olympism. The concepts are provided as evidence of the relationship between Olympism and many objectives of the instructional program and, as such, serve as bridges between the two. As suggested in the INTRODUCTION, you may wish to use these concepts in assessing student awareness before and/or after using the unit material.

olympism
competition
comradeship
(camaraderie)
commendation
emulation
cooperation
participation
brotherhood
fitness
recreation
mental health
sportsmanship
safety
achievement
pride
courage
amateurism
professionalism
victory
defeat
environmental impact
economic impact
cultural awareness
humility
tolerance
individual differences
respect
self-worth
citizenship
energy consumption
endurance
persistence/tenacity
responsibility
appreciation
leadership
(self-)confidence
opposition
disputation
contention
nationalism
patriotism
feminism
terrorism
ethnicism
(ethnicity)
aggression

OLYMPIC UNDERSTANDINGS

The understandings below describe the Olympic Games as a social, athletic, political, emotional, spiritual, educational (..., etc.) world "event." They also suggest what some of the desirable outcomes of a study of Olympism might be and, as such, may be used to measure what students have gained from participation in the unit activities. (A number of these statements, which some will recognize, are thoughts, actual, and paraphrased, of Baron Pierre de Coubertin and Avery Brundage.)

The motto of the Olympics, "Citius, Altius, Fortius," means swifter, higher, and stronger. The motto is a fitting one for any competition, but it is also an important motto for all human activity since it prescribes no limits on man's ability to improve the human condition.

The Olympic Games are a series of sporting events involving fair and friendly competition for amateur athletes, which are sponsored by the nations of the world.

Merely participating in the Olympics is a victory in itself. The failure to win a medal should not detract from the honor of having participated in a contest with the world's best athletes.

The Greek ideal for the Ancient Games held at Olympia is worthy of emulation in today's world — the spirit of the games should be used to help our citizens to grow into strong, able, beauty-loving, and wise citizens.

The Greeks might decry the flags, anthems, and nationalism inherent in the modern games. The Olympics would be far better if all of us could exult in a victory, regardless of a person's race or nationality. Such an exultation in the games could be used as an effective vehicle for fostering peace and international understanding.

Although there are a number of team events, the Olympics emphasize individual competition.

Americans have diverse, ethnic backgrounds. We can take special pride in the achievement of athletes from the different nations participating in the games.

The Olympic Games take place every four years and are comprised of summer and winter games.

A great deal of planning, work, coordination, and cooperation must take place throughout the world in order for the Olympic Games to occur.

The Olympic Games promote and encourage the physical, moral, and cultural education of the youths of each participating country so that their health, patriotism, character, and citizenship may develop fully.

The Modern Olympic Games have a long and rich heritage from the ancient games at Olympia. A study of the ancient games can teach us the benefits of the ancient games and the flaws that led to their demise.

Sports are a mirror of humanity, reflecting human struggle, accomplishment, progress, victory, and defeat.

The principles of fair play and good sportsmanship taught through sports have applicability to other human experience. Life itself is a form of competition and our movement through our lives can be helped by sports experience.

Games are an expression of a peoples' culture.

Sports should be valued for the fun they provide.

Sports can serve to enrich the lives of individuals by providing them with opportunities to play, to relax, and to socialize.

Games can be played by people paid to play the game (professionals) and people who play the game for fun (amateurs). The Olympic philosophy supports amateurism as the ideal; however, professional athletes can find the same values in competition as those who engage in sports for pleasure.

The Olympic Games strive to maintain the highest levels of amateurism. Today's commercial world poses a threat to the ideal of amateurism.

Professionalism in sports can detract from the values inherent in sports by emphasizing victory over participation.

Spectators at sporting events can develop the misguided view that spectating is equal to actual participation in the sport itself.

The games at Olympia celebrated achievements of the mind as well as achievements of the body. Recreation in modern days should encourage physical competition, but it should also stimulate and encourage the fine arts.

The Olympics and other sports events can be used to encourage international cooperation in areas other than sports.

The Olympics, and sports in general, can emphasize what human beings of various national groups have in common in order to minimize national differences.

Participation in sports stimulates a curiosity about the human body and its functions and how these functions contribute to improved performance. Such curiosity can encourage a search for, and an acceptance of, good health practices.

Involvement in sports that support the ascendancy of participation over winning can make a positive contribution to good mental and emotional health.

The violence at the Munich Games (1972) demonstrated a world's vulnerability to terrorism and dramatized the need for a worldwide commitment to law and order.

Television provides us with an instant view of Olympic competition. Such a view can expand the impact of the Olympics but it can also identify and exacerbate problems with the Olympic Games.

International relations have a direct effect on the Olympics; the selection of the host city; eligibility of competing countries; and the selection process for the teams. Such effects can be both positive and negative.

The Olympic Games are metric games. They provide a practical means of introducing metrics to nonmetric countries and peoples.

PRINCIPAL GODS OF GREEK AND ROMAN MYTHOLOGY

Greek	Roman	Function/Attributes
ZEUS	JUPITER	King of gods, sky, rain, thunder, lightning, surface of earth, hospitality; sceptre, aegis, thunderbolts
HERA - sister and wife of Zeus	JUNO	Queen of Gods, marriage; messenger was Iris (rainbow)
HESTIA - sister of Zeus	VESTA	Fire in hearth, domestic life; attended by vestal virgins
DEMETER - sister of Zeus	CERES	Grain, agriculture
POSEIDON - brother of Zeus	NEPTUNE	The Sea, horses; trident
HEPHAESTUS - son of Zeus (?) and Hera	VULCAN	Fire; blacksmith of gods and heroes; anvil and forge, sooty face, lameness
ARES - son of Zeus and Hera	MARS	Offensive war, violence and destruction, fearsome appearance, weapons
APHRODITE - daughter of Zeus, wife of Hephaestus	VENUS	Love and beauty, the reproductive urge, fertility; Eros (Cupid), her doves, called Cypris of Cytherea
ATHENA (PALLAS) - daughter of Zeus	MINERVA	Wisdom, defensive war, arts of peace; owl; olive tree; helmet, spear, shield
HERMES - son of Zeus	MERCURY	Messenger of gods, guide to underworld, travelers; winged hat and sandals, caduceus, speed
APOLLO (PHOEBUS) - son of Zeus	APOLLO	The sun, prophecy, music lyre, medicine, archery; bow and arrow, the hind
ARTEMIS - daughter of Zeus and Apollo	DIANA	The moon, hunting wild animals, childbirth, maidenhood; bow and arrows, the hind
OTHER IMPORTANT GODS		
HADES - brother of Zeus	PLUTO	Ruler of the underworld, giver of wealth; stern and frightful appearance
PERSEPHONE - daughter of Zeus and Demeter, wife of Hades	PROSPERINA	Queen of the underworld

DIONYSUS - son of Zeus	BACCHUS	Wine and orgiastic celebrations; vine leaves in hair, bacchantes, satyrs, maenads
SOME MINOR DIVINITIES		
AMPHITRITE		Queen of sea, wife of Poseidon
ASCLEPIUS	AESCULAPIUS	Son of Apollo, god of medicine
EROS	CUPID	Son of Ares and Aphrodite, inciter to love; bow and arrows
HEBE	JUVENTAS	Daughter of Zeus and Hera, cupbearer of the gods until supplanted by Ganymede (a mortal)
HECATE		Three-headed goddess of ghosts; sorcery, graveyard, crossroads
HYGEIA		Goddess of health, daughter of Asclepius
HYMEN		God of marriage
NEMESIS		Goddess of vengeance, retribution
NEREUS		Father of Nereids and of Thetis
PAN	FAUNUS	Shepherds, man goat, plays syrinx, (pipes), inspires horror (panic) in travelers
PROTEUS		Minor sea god, "Old man of the sea," ability to change his shape at will
THETIS		Chief of the Nereids, mother of Achilles
TRITON		Son of Poseidon and Amphitrite
GROUPS OF DIVINITIES		
CHARITIES - daughters of Zeus	GRATIAE	Three Goddesses of grace and beauty, friends of the Muses
EUMENIDES (Erinyes)	FURIAE	Pursued wrong-doers eternally, drove them insane (force of conscience)
MOIRAE	PARCAE	Three Fates: Clotho, who spun, Lachesis, who drew out, and Atropos, who cut thread of man's life
THE MUSES		Nine daughters of Zeus and Mnemosyne (Memory), turned stories of the Olympians, the earth, the sun, and the stars into songs and poems: hymns; epics; history; astronomy; dance; tragedy; comedy; music; lyrics

COMPONENTS OF PHYSICAL FITNESS

I. Flexibility

- Flexibility is specific for each joint of the body.
- Flexibility may help prevent sore muscles, injury during strenuous activity, and some health problems.
- Slow, passive, stretching exercises are best for improving flexibility; not bouncing and jerking.
- Flexiblity need not be diminished as strength develops.
- The length of body part does not affect flexibility tasks.
- Flexibility tends to deteriorate in people over 30 years of age.
- Warm-up/stretching exercises should be done before activities involving repeated muscle contractions and movement through a full range of motion in a joint.
- Muscles should not be forced beyond a normal range of movement in a joint as that may cause nerve or bone damage.

II. Muscular Endurance and Strength

- There are three types of muscle tissue:
  - Smooth - long, spindle-shaped fibers, each with one nucleus. They function as the movers of internal organs.
  - Cardiac - interwoven fibers found in the heart.
  - Skeletal - long, cylindrical fibers with many nucleii. They provide the force for the movement of the skeletal system.
- There are two major types of muscle contractions for strength development:
  - Isotonic - dynamic contraction (lifting weight through a range of movement), weight-lifting.
  - Isometrics - static contraction (muscle force applied against an immovable object).
- Girls also need to strengthen muscles but don't need to look "muscular." Girls cannot "bulk up" like boys because of the difference in body hormones.
- Strength is improved by lifting heavy weights with few repetitions (3-4), while endurance is increased by lifting lighter weights with many repetitions (12-15). Both of these methods involve what is called the "overload principle." In order to develop both of these qualities in a muscle, you would determine an amount of weight you could lift for 8-10 repetitions, for example.

III. Cardiovascular Endurance

- Exercises for cardiovascular endurance stimulate an increase in cardio-respiratory functioning resulting in improved cardiac and aerobic (oxygen use) capacity.
- Such activities as walking, jogging, bicycling, and swimming are particularly good for developing cardiovascular endurance.
- Healthy children should spend a minimum of 15 minutes in the activity at a pace necessary to get the pulse rate to 140-180 beats per minute.

- Improved circulatory endurance results in increases in the oxygen-carrying ability of the blood, the number of the capillaries, and cardiac efficiency and output.

- Distance, speed, and duration of a cardiovascular activity may be regulated to the individual's beginning fitness level.

IV. Body Composition

- It has been recently accepted that the amount of body fat on one's body frame affects the individual's physical fitness performance. Exercise can play an important part in weight control and fat reduction.

- Approximately 25 percent of the children in the United States are too fat.

- There is more and more evidence that fat children do not become healthy adults; fat children become fat adults.

- There is increasing evidence that inactivity is the most likely cause of obesity, rather than overeating or glandular disturbances.

OLYMPIC SPELLING LIST

achievement
agility
altitude
amateur
ambition
ambitious
amiable
anchor
ancient
appreciation
archery
athlete
atmosphere
barrier
basketball
brilliance
camaraderie
campaign
candidate
canoe
capacity
captain
carnival
celebration
champion
characteristic
chariot
citizen
civilization
colleague
combatants
committee
competition
congratulate
cooperation
conquer
conquerors
conquest
consolation
conspirator
contestant
contradiction
courage
creed
cycle
decathlon
defeat
dignity
empire
enormous
enthusiastic
equestrian
exercise
exhaustion
exhibition
exquisite
fatigue
festival
foreign
fundamental
glory
gymnastics
harmony
historian
horizontal
hurdles
individual
international
javelin
jockey
jubilant
magnificent
marathon
medal
military
myth
nationality
oath
occasion
official
Olympiad
Olympics
opponent
pageantry
panorama
parallel
participation
peaceful
pentathlon
performance
physical
pigeon
pledge
podium
population
practice
praise
privilege
prize
professional
pursuit
racquets
referee
relay
representative
responsible
ritual
rivalry
sacrifice
sculptor
soccer
solemn
spectacle
spectator
spirit
stadium
stamina
statistics
statue
steeplechase
strength
summit
superiority
technique
traditional
treacherous
tremendous
triumph
vault
velocity
victor
victorious
volleyball
wreath
wrestling
yacht

THE OLYMPIC COMMITTEES

INTERNATIONAL OLYMPIC COMMITTEE

The International Olympic Committee (IOC) was formed by Baron Pierre de Coubertin in 1894. Today it is composed of 85 sportsmen from all over the world. The functions of the IOC are to:

- Settle overall policy for the Olympic Games.
- Select its own members.
- Draw up eligibility rules.
- Select host cities.
- Negotiate worldwide television contracts.

Presidents of the IOC

• Demetrias Vikelas	Greece	1894-1896
• Baron Pierre de Coubertin	France	1896-1925
• Count de Baillet-Latour	Belgium	1925-1942
• J. Sigfrid Edstrom	Sweden	1946-1952
• Avery Brundage	U.S.A.	1952-1972
• Lord Killanin	Ireland	1972-1980
• Juan Antonio Samaranch	Spain	1980-

One hundred and thirty-eight countries belong to the IOC. Each of these countries is governed by its National Olympic Committee (NOC). The function of an NOC is to select, organize, train, and enter athletes for the Olympic Games. Our NOC is the United States Olympic Committee (USOC).

United States Olympic Committee

The USOC is the only NOC from a major nation that receives no direct grant from its government. (Note: Government appropriations to the USOC have been authorized by the Amateur Sports Act of 1978.) There are 10 million amateur athletes in the U.S.A. Ten thousand compete for berths on the U.S. teams which go to the Pan American Games and the Olympic Games.

The USOC is made up of members from the following:

- Thirty-two National Governing Bodies (NGB)
- Athletes themselves
- Multi-sport organizations
- State committees

Structure of the USOC

- House of Delegates - Each of the aforementioned groups elects its members to the House. The House is composed of 300 delegates. The House elects officers, ammends by-laws, and governs the activities of the USOC.

- Executive Board - Made up of 70 members from NGB's, the Executive Board runs the business affairs of the USOC.

- Administrative Committee - The Administrative Committee is composed of six officers who carry out the legislation of the House of Delegates and the Executive Board's decisions. These officiers are elected for four year terms by the House of Delegates.

EVENTS OF THE ANCIENT GAMES

The Ancient Games began in 776 B.C. and continued until 393 A.D., a span of almost 1200 years. The first Olympic champion was Koroibos, a cook from Elis. The last was a foreigner, Varazdates, a member of the royal family of Armenia. Olympic Games were held at various sites including, Delphi, Corinth, Isthmia, Nemea, and Olympia. While the victor's award, an olive wreath, was not significant in material terms, his subsequent rewards and recognition were considerable:

- "Ticker-tape" parade in his hometown
- Statue at Olympia
- Tax exemption for life
- Military Appointment
- Worshipped as a hero

THE EVENTS

RUNNING...All events were conducted in the nude, feet included.

- The *Stade* - Only event for the first 13 Olympiads; 192.28 m or one length of the stadium
- The *Diaulos* - Sprint; two lengths of the stadium or two *stades*
- The *Hippios* - Middle distance; four *stades*
- The *Dolichos* - Long distance; 20 *stades*
- Race in Armor - Athlete wore helmet, greaves (shin guards), and shield; two *stades*
- Pentathlon - Special combined event; running (probably *dolichos*), discus, javelin, long jump, and wrestling

LONG JUMP...There was an approach distance to a take-off board from which the athlete jumped into a soft pit. The jumper used weights, called

halteres, to give him added distance during his jump. (The *halteres* were held, one in each hand.) The distance was measured with a standard rod from the take-off board to the landing mark in the pit.

DISCUS...The thrower stood on a kind of springboard. The discus was first made of stone, later bronze, and varied in weight from 1 to 5 kg and from 20 to 30 cm in diameter. The size of the discus was determined at each Olympiad. All competitors threw the same discus. It has not been determined if the discus was thrown off the index finger as is done today, if it was released from the back of the hand, or if it was rolled along the ground like a bowling ball.

JAVELIN...The javelin was approximately 2m long and was thrown with the help of a leather thong. The run up was much shorter than is used today. There were two javelin events: throwing for distance and throwing at a target (done from a horse).

WRESTLING...Wrestling is the oldest and most widespread sport in the world, and is the earliest form of fighting without weapons. There were two forms in ancient Greece:

- Upright — done in a sandy pit where the athlete had to throw his opponent to the ground three times to win.
- Ground — conducted in wet soil where the match continued until one athlete admitted defeat.

BOXING...Boxing was performed, perhaps, in a circle-type arena. The athlete's hands were wrapped with straps of soft oxhide, which later evolved into a glove allowing the fingers to be free. These leather straps were called *himantes*. There were no time limits for the bout. The victor was declared after a competitor admitted defeat.

PANKRATION...The *pankration* was a combination of boxing and wrestling. Just about any tactics were legal except biting and gouging. Again, there were no time limitations. The victor was declared after a competitor admitted defeat.

EQUESTRIAN EVENTS...The arena used for races with horses was known as the *hippodrome*. A distance of four *stades* determined one circuit.

- Chariot races — The chariots had room for two standing men, although only one drove the team of horses in races.
- Horse races — Different distance races for different types of horses were held. It is not known whether the rider rode bareback or on the saddle-cloth.

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